

СЕКЦІЯ 10. РЕЗУЛЬТАТИ НАУКОВИХ ДОСЛІДЖЕНЬ ЗДОБУВАЧІВ ВИЩОЇ ОСВІТИ

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Analysis of oncological drugs accessibility in Morocco

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Introduction. The growth of the oncology drugs market is driven by an increase in the prevalence of cancer disease and the rise in the incidence of various cancer conditions, an increase in the popularity of advanced therapies, and a surge in the geriatric population worldwide. Consequently, evaluating access to oncological drugs becomes essential to assess the quality of healthcare services and, in turn, the overall performance of the curing of cancer in Morocco.

The aim of the study – is to describe the current state and the initiatives implemented by Morocco to enhance cancer management, understand the evolving consumer preferences and market trends, and evaluate the impact of local production initiatives that can improve the accessibility to oncological drugs in Morocco.

Methods and sources: a systematic analysis of global trends, and existing studies on cancer prevalence and pharmaceutical access in Morocco.

Results. Morocco is currently in an epidemiological transition called “double burden” with the coexistence of infectious and chronic diseases. Cancer poses a significant public health challenge in Morocco, with approximately 55,000 new cases annually. The most frequent cancers in men are lung, prostate, bladder, colorectum, and lymphoma. Whereas, for women, the most frequent are breast, cervix, colorectum, thyroid, and ovary. Breast cancer is the leading cancer among females (36% of cancers in women) with an age-standardized incidence rate of 40.8 per 100,000 [1]. In Morocco, cancer is treated in five public centers and six private structures in addition to the cancer department of the military hospital. Despite a relatively high incidence of many sites of cancer across the country, so far there is no national register for this disease. A significant portion of the Moroccan population

relies on oncological care, encompassing various treatments such as surgery, radiotherapy, chemotherapy, targeted therapies, hormone therapy, immunotherapy, and palliative care. Access to medical specialty training (also called residency) in oncology is possible for:

- Medical oncology (Rabat, Casablanca, Marrakech, Fes, Oujda and Tanger)
- Radiotherapy (Rabat, Casablanca, Marrakech, Fes, Oujda and Tanger)

The Moroccan government has recently validated the National Plan for Cancer Prevention and Control 2020–2029 with a specific focus on prevention and screening programs, improvement in national cancer management, investment in information technology, and advanced research programs [2]. Moroccan consumers are increasingly seeking out innovative treatments for cancer, including targeted therapies and immunotherapies. They are also looking for drugs that have fewer side effects and offer a better quality of life during treatment. Firstly, the predominant reliance on imported anticancer drugs underscores the significance of local production in enhancing treatment accessibility. Moreover, recent studies exploring the anticancer properties of medicinal plants in Morocco offer promising insights. Bioactive molecules derived from plants such as *Origanum compactum*, *Inula viscosa*, *Retama monosperma*, *Ormenis eriolepis*, and *Urginea maritima* show potential for developing specific anti-cancer drugs. This signifies a convergence of traditional Moroccan folk medicine with modern pharmaceutical research, presenting a multifaceted approach to address the complex landscape of oncological drug accessibility in Morocco.

Moroccan health authorities need to devote between USD 13.3 million and USD 28.6 million every year in order to treat women suffering from localized breast cancer. For the tumour over expressing HER 2 Neu, we need to treat 25 women in order to save (cure) one woman: the calculated cost for one life saved is USD 663,000. Is it cost-effective for an emerging country? This is a main question that we leave with health decision-makers. According to estimation methods, the complete cost of adjuvant chemotherapy including trastuzumab will represent between 1.3 and 2.4% of the global budget of the Health Department (MAD 9.8 billion or USD 1.274

billion). Unfortunately, only one-third of the Moroccan population has healthcare insurance whereas for each patient the treatment with chemotherapy alone costs 1.15 times the annual minimum income (MAD 23,710 or USD 3,082), and treatment needing both chemotherapy and trastuzumab costs 9.76 times the annual minimum income (table 1) [3].

Table 1

Estimation of the cost of treatment by breast cancer chemotherapy in Morocco

Country	Individual cost of trastuzumab in US dollars	The individual cost of trastuzumab. Equivalent in local currency
Morocco	USD 26,280	MAD 204,000
France	USD 39,629	EUR 27,594
United Kingdom	USD 41,247	GBP 25,866
USA	USD 70,000	USD 70,000
Australia	USD 44,146	AUD 50,000

Conclusion. This study sheds light on the intricate dynamics of oncological drug accessibility in Morocco. The market reflects evolving consumer preferences for advanced therapies, emphasizing the need for solutions that balance global healthcare advancements with culturally sensitive approaches. As Morocco progresses toward pharmaceutical self-sufficiency, stakeholders must navigate this nuanced landscape, ensuring that healthcare strategies align with local sensitivities.

References:

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