



COUNTRY PROFILE: CANCER MEDICINES SHORTAGES

BELGIUM

Introduction

EIU indicators	2018 ratings
Political environment rating (10=high)	7.9
Effectiveness of system in policy implementation (5=high)	3.6
Infrastructure rating (10=good)	8.6
Level of corruption (5=low)	4.0

The Belgian healthcare system has achieved good performance indicators over the past decade, especially in the area of acute care. However, some challenges remain in terms of prevention, primary care and reducing inequalities.¹ Health spending in Belgium has increased steadily from 9% of the Gross Domestic Product (GDP) in 2005 to 10.5% in 2015—which is above the European Union

(EU) average of 9.9%. The health spending per capita (EUR 3,568) is also above the EU average. Government health spending accounts for 77% of the total health expenditure.¹

Pharmaceutical spending in Belgium as a percentage of health spending (14.7%) is slightly lower than the EU average (17%). However, if the spending on hospital medicines is included the figure will be much higher.^{2,3} In 2015, the Ministry of Social Affairs and Public Health signed an agreement with pharmaceutical industry representatives, the so-called “Pact for the Future”, to ensure the sustainability of pharmaceutical spending and foster innovation in the country.⁴ While the main objective of the agreement is to improve patient access to innovative medicines, it also shows the government’s commitment to address the issue of medicines shortages.⁴ According to the definition of the European Medicines Agency (EMA), a medicine shortage “occurs when supply cannot meet demand at a national level.”⁵

Over the last decade, medicines shortages in Belgium have been a major topic for political discussions and academic research.⁶⁻¹¹ Two recent European surveys of hospital pharmacists reported that cancer medicines were among the medicines most commonly affected by shortages in Europe, having serious impact on patient care, on healthcare professionals time and workload and health systems budgets.^{8,12} A 2015 Belgian study analysed the data for shortages in the hospital pharmacies of the Ghent University Hospital and the Acute Care Hospital Sint-Lucas Ghent between 2001 and 2014. This study found that the medicines experiencing shortages in this period included anti-infective, cardiovascular and hormonal system medicines, and, since 2011 cancer medicines.⁹ This is a concern as cancer is the second leading cause of death in the country after cardiovascular diseases. In 2014 it accounted for 29% of deaths in men and 23% in women, with lung cancer as the main cause of death, followed by colorectal and breast cancer.¹

What is happening on the ground?

As medicines shortages have been on the Belgian political agenda for more than a decade, in 2014 the Federal Agency for Medicines and Health Products (FAMHP) established a central reporting system for shortages, which is updated on a daily basis with information provided by marketing authorization holders (MAHs).¹³ Nevertheless, five years later, shortages continue to be a problem in the country. In 2018, over 90% of the Belgian pharmacists participating in the 2018 European Association of Hospital

Pharmacists (EAHP) survey reported that shortages were a daily or a weekly occurrence.¹² At the beginning of 2019 (3 January), there were 382 notifications, 24 of which (7%) were for cancer medicines (Table 1). All of the cancer medicines experiencing shortages are inexpensive, generic products, and the majority of them (88%) are included in the WHO Model List of Essential Medicines.^{13,14}

The interviews with Belgian health professionals confirm that cancer medicines shortages in hospital pharmacies are frequent and can occur on a weekly basis. The shortages not only affect cancer medicines, but also antiemetic medicines used to control the side effects of cancer treatment such as nausea and vomiting. The shortages usually last a few weeks, however, in some cases, they can continue for months. For example, fludarabine has been in short supply since October 2018, and the shortage is expected to be resolved in April 2019.¹³

Medicines shortages affect patients' outcomes as well as pharmacists' and clinicians' time. In fact, hospital pharmacists spend a lot of time on medicines shortages, searching for alternative treatments, informing other healthcare providers, and changing stocks.⁶ In some cases, oncologists are not even aware of potential shortages as pharmacists may manage to solve or avert a shortage situation before it affects the providers and the patients.* As hospital pharmacies in Belgium can order medicines directly from both manufacturers and wholesalers⁶, when medicines are in shortage and there are no alternative treatments available in the hospital, hospital pharmacists are able to procure the medicines from other sources, allowing patients to get their treatment without long delays, which is of paramount importance for cancer patients. If there is no other supplier in the country, medicines are usually purchased abroad, most often from the Netherlands or Germany.*

Table 1. Examples of cancer medicines affected by shortages in 2018

Cancer Medicine	Indication
Capecitabine	Breast cancer; Colorectal cancer; Gastric cancer
Carboplatin	Cervical cancer; Head and neck cancer; Ovarian cancer; Small-cell lung carcinoma
Docetaxel	Breast cancer; Head and neck carcinoma; Gastric adenocarcinoma; Non-small-cell lung carcinoma; Prostate carcinoma
Fludarabine	Chronic lymphocytic leukaemia; Multiple myeloma; Non-Hodgkin's lymphoma
Letrozole	Breast cancer
Methotrexate	Acute lymphoblastic leukaemia; Breast cancer; Head and neck cancer; Lung cancer; Non-Hodgkin's lymphoma; Osteosarcoma; other cancers
Oxaliplatin	Colorectal carcinoma

Source: The Federal Agency of Medicines and Health Products (FAMHP)¹³

*Expert interviews

However, when medicines are procured abroad, the Belgian National Institute for Health and Disability Insurance (INAMI) does not reimburse the cost of the medicines and the patients have to pay for the treatment out-of-pocket or using private health insurance. In the case of socially disadvantaged patients, the hospital usually covers the cost, as patients cannot be left without treatment.*

Some patients may need to pay out-of-pocket for the failures of the medicines supply system.

Why do inexpensive cancer medicines go missing?

The FAMHP distinguishes two types of unavailability of medicines:¹⁵

- A 'temporary unavailability', which can span from 14 days to one year—a shortage that lasts less than 14 days is not considered a 'real unavailability'.
- A 'marketing cessation' is triggered when a medicine has not been available for more than a year and, as a consequence, the product is removed from the shortages database.

The FAMHP shortages platform provides information about the product name, the pharmaceutical form, the MAH, the start and end date of the event, and the reasons for the shortage. These reasons include production, logistic or packaging problems, new batches not yet available, temporary suspension of the marketing authorisation, or patent dispute. However, 12% of all notified cases until the end of 2018 had "other cause" as the reason for the shortage. The most common reported causes for cancer medicines shortages are unavailability of new batches and "other causes".¹³

Case study. Bacillus Calmette-Guérin (BCG) vaccine shortages, 2015

In 2015, Belgium and other European countries suffered a shortage of the Bacillus Calmette-Guérin (BCG) vaccine, primarily used against tuberculosis but also for the treatment of early-stage bladder cancer. This inexpensive vaccine was not available for several months, forcing some cancer patients to interrupt or postpone their treatment, which had negative consequences on their outcomes. The vaccine was supplied in Belgium by two manufacturers: when one of the suppliers interrupted its production line to expand the production facility, the other manufacturer could not meet the increased demand leading to the shortage of the vaccine. As the manufacturer supplied also other European countries, imports from other countries were not possible. With no alternative treatments available the impact on patient outcomes was serious.¹⁶

Main reasons for cancer medicines shortages in Belgium

Manufacturing problems

The most common causes of cancer medicines shortages in Belgium are related to production problems, which include limited manufacturing capacity, non-compliance with regulatory standards and raw materials issues. Even after the initial problem is resolved it may take some time for the manufacturer to get back to normal production levels as having new batches available takes time.¹³

*Expert interviews

Purchasing strategies

Belgium relies on two main strategies for medicines purchasing – public tendering and external reference pricing (ERP). The ERP system takes into consideration the medicine prices in a group of other reference countries. This strategy may affect the availability of certain medicines when a company decides to remove a product from the Belgian market due to its relatively lower price to keep prices higher in other EU countries. Tendering practices may also have negative consequences on the availability of medicines, when a single supplier is selected based on the price it offers instead of assessing its ability to guarantee the uninterrupted supply of medicines.⁷

Parallel distribution and quotas/rationing

Several sources mention parallel trade as a reason for cancer medicines shortages in Belgium; however, there is not much published data about its impact.^{7,11} A new legislation submitted to the Belgian Parliament in March 2019 proposes a reform of the distribution system in Belgium by creating two tiers of distributors—exporters and domestic distributors. Manufacturers will have “a greater obligation” to supply domestic distributors.¹⁷ This bill is introduced to prevent shortages due to exports of medicines to higher-price countries in the EU.¹⁷ The issue of delivery quotas is as controversial as parallel trade.^{7,11} When quotas are used sales volumes are limited by the suppliers according to pre-agreed levels, which can lead to shortages or rationing of the medicine if there is an increase in demand.⁷

Table 2. Who is involved in tackling shortages in Belgium and what are the current initiatives?

Competent authority	Responsibilities and current initiatives
The Federal Agency of Medicines and Health Products (FAMHP)	<ul style="list-style-type: none"> • Receives and manages notifications for shortages from MAHs. • Manages temporary cessation of marketing authorisation for shortages lasting more than a year. • Manages an online public platform for shortages with up-to-date information from MAHs. • Provides additional information for health professionals when the shortage could cause problems for the treatment of patients.¹³
Ministry of Health, Food Chain Safety and the Environment	<ul style="list-style-type: none"> • Expressed commitment to work with industry to minimise the shortage of medicines needed by Belgian patients. • Considered regulatory changes to avoid withdrawal of medicines from the market when a medicine has been missing for more than a year.⁴

The FAMHP shortages reporting system is a useful tool for monitoring the shortages of specific products as well as for communicating the information provided by MAHs to the healthcare providers. Other stakeholders—physicians, pharmacists and patients—can inform FAMHP about products in short supply that are not displayed on the list. In these cases, the agency contacts the MAH to find out whether the reported case is a shortage event or a local distribution problem with duration of less than 14 days.¹³ The main challenge of the system is the lack of legal action to enforce compliance on the regulation for mandatory notification when the MAHs fail to notify the shortage. If a medicine remains on shortage for more than a year, it will be removed from the list, creating a challenge for the assessment of the magnitude of shortages in the country. It has been reported that the automatic cessation of marketing authorisation would be re-evaluated but no action seems to have been taken so far.⁴

Looking into the future

Although cancer medicines shortages are frequent in Belgium most of them are resolved rather quickly either by identifying alternative treatments or by importing the medicines from other countries with no effect on patient care. Although the communication between healthcare professionals during a shortage event is good, there is a need for more coordination at national level to tackle the issue of medicines shortages in the country.

The following considerations and proposals have been made for preventing and mitigating shortages:

- The information provided by the FAMHP reporting system includes the cause of shortages. However the reasons sometimes are vague. For this reason, further investigation into the causes is required.
- Currently, the FAMHP reporting system does not include products in short supply for which MAHs have not provided notification as required by the law.¹⁵ This represents a gap in the enforcement of regulations that needs to be addressed. The lack of timely notification creates uncertainties for the healthcare professionals and hinders their efforts to mitigate shortages.
- Tendering practices can be improved to ensure uninterrupted supply of medicines. In case of shortages, MAHs should be responsible for obtaining the medicines from other countries and supplying them to hospital pharmacies. This will ensure that the medicines are reimbursed by INAMI, avoiding the out-of-pocket payments for the patients.
- International collaboration could be considered to facilitate the exchange of medicines in case of shortages, for example, within the BeNeLuxA initiative comprising Belgium, the Netherlands, Luxembourg, Austria and Ireland.¹⁸

Possible solutions

Solution 1

Develop a list of essential cancer medicines

- This initiative should involve national competent authorities, policymakers, as well as professional associations of oncologists and oncology pharmacists.
- The list should include all essential medicines required for the treatment of cancer patients, including those on the WHO Model List of Essential Medicines.

Solution 2

Create a task force and develop a national strategy to address medicines shortages

- The task force should include representatives of national regulatory authorities, policymakers, healthcare professionals, patients, and the pharmaceutical industry.
- Develop a national strategy for prevention and mitigation of medicines shortages. Reinforce legal action over non-compliance with the regulation for notification of shortages and re-evaluate the automatic cessation of marketing authorisation after one year of unavailability.
- Make MAHs accountable for the consequences of shortages of essential cancer medicines to avoid patients' out-of-pocket payments.

Solution 3

Establish procurement models designed to prevent shortages

- Based on the list of essential cancer medicines and the number of cancer patients in the country, the procurement model should be redesigned to prevent shortages or product withdrawals from the market.
- Manufacturers participating in public tenders should be assessed on several criteria, including their ability to guarantee the uninterrupted supply of medicines and not just on price.

Solution 4

Improve awareness about the shortages reporting system

- Improve the awareness about the reporting system for shortages among pharmacists, clinicians and patients.
- Provide information on how other stakeholders can submit information to the reporting system.

Solution 5

Promote international collaboration to tackle medicines shortages

- Explore opportunities for prevention and mitigation of cancer medicines shortages with partners from the BeNeLuxA initiative.
- Investigate the potential for collaboration for quick resolution of shortages involving inexpensive, essential, generic cancer medicines.

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