

## **Faced to the high cost of new medical treatments in oncology [1]**

**Press release from the French National Academy of Medicine**

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Over the past 25 years, medical treatments for cancer have been revolutionized. Major innovations have led to the development of new approaches: targeted therapies, immunotherapy (monoclonal antibodies and junction point inhibitors), and advanced therapy medicinal products (ATMs) including, in particular, genetically transformed lymphocytes (Chimeric Antigen Receptor-T or CAR-T cells), cell therapy with Tumor Infiltrating Lymphocytes (TILs) and “anti-cancer” vaccines. These treatments, sometimes specific to each patient, use sophisticated and expensive technologies, still reserved to specialized laboratories. Nevertheless, this therapeutic diversification is associated with a significant increase in the number of new cancer treatments coming onto the market.

Whether treating solid tumors or hematological malignancies, these therapies are proving to be much more effective than previously used chemotherapies. In some cases, their efficacy makes it possible to aim for a high survival rate, for example in some metastasized melanomas or in chronic myelogenous leukemia (1), or even to consider some cancers as “chronic illness”; this, at the cost of lengthening prescriptions. In other cases, mainly for malignant hematological diseases, an ATMS (based on CAR-T cells) administered once over a few minutes, may be sufficient to treat the disease, the cost of the unit infusion being however around 350,000 euros.

This increased therapeutic effectiveness goes hand in hand with an increase in drug spending in oncology, by 13% per year on average worldwide between 2017 and 2021 (2). Within the European Union, the growth in these expenses is linked to the increase in the number and volumes of drugs used due to the increase in the number of patients treated and/or the extension of their lifespan under treatment (2), as well as the very high price of some therapies. The emblematic example is that of CAR-T cells, whose prescription continues to increase, mainly for the treatment of B lymphomas (3).

Alongside this major therapeutic evolution, several companies have refocused their activities on the now profitable field of oncology: the rate has increased from five new drug launches on the market per year until 2012, to 21 per year since 2017. Finally, the median time to market access has continued to shorten since 2017: 60% of currently available treatments were placed on the market in 2020 and 2021, i.e. less than 10 years after patent filing (2).

This very specialized research is initiated within young companies, leading to drug development in two phases: that of innovation, carried out within a “start-up” often from the University, then that of production/marketing by a large pharmaceutical group having purchased the patents of young companies, often at a high price, or even the “start-up” itself.

**In the light of this great movement, fortunate for the treatment of patients, but worrying for an equal access to care, and due to significant budgetary tensions linked to increased healthcare spending, the French National Academy of Medicine makes the following recommendations (2):**

**– To the health authorities to:**

- Improve the design of clinical trials, in order to better assess the improvement in the medical benefit provided, particularly concerning rare cancers;
- Significantly shorten the time required to obtain authorization to start a phase 1 clinical trial and, for ATMs, in requiring the Good Manufacturing Practice (GMP) file only at the time of the request marketing authorization;
- Limit the use of the accelerated approval procedure to unmet clinical needs;
- Strengthen European cooperation in clinical trials, analyze the causes of the very high cost of some treatments and the process of price setting, and encourage the involvement of the academic sector, particularly in the production of CAR-T Cells (4), in order to exert downward pressure on the price level;
- Develop medico-economic evaluations based on real-life cohort studies;
- Ensure access to treatments for all patients, regardless of where they live.

**– To the pharmaceutical industry:**

- Ensure the rigor of post-authorization or post-listing studies, for example on the monitoring of side effects, particularly in the auto-immune field.

**– To prescribers:**

- Exercise an extreme rigor in prescribing these treatments and in monitoring patients in the short, medium or long term;
- Offer patients the opportunity to participate in therapeutic cohort studies.

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[1] Press release from the Academy's Rapid Communication Platform. Tweet

CONTACT PRESSE : Virginie Gustin +33 (0)6 62 52 43 42 virginie.gustin@academie-medecine.fr ACADÉMIE NATIONALE DE MÉDECINE, 16 rue Bonaparte - 75272 Paris cedex 06 Site : [www.academie-medecine.fr](http://www.academie-medecine.fr) / Twitter : @Acadmed