What role for repurposed drugs in cancer treatment?

Written by Alojz Peterle and Lieve Wierinck on 2 February 2018 in Opinion

Opinion

Repurposed drugs could be the answer to soaring cancer treatment costs, write Alojz Peterle and Lieve Wierinck.

The cost of cancer care is rising exponentially, not only because of a growing prevalence but also due to high prices of new cancer medicines coming onto the market. Some drugs already approved for other diseases have shown promise for treating cancer, but these potential new options rarely reach patients. Repurposing these could introduce new treatments relatively quickly and at low cost, thereby meeting unmet needs and improving the sustainability of our national healthcare systems.

Cancer medicines prices have risen seven-fold in the last 20 years. New anticancer agents can now cost more than €100,000 per year of treatment, while repurposed drugs may cost as little as €10-1000 per year. Time is another important benefit of repurposed medicines. Conventional drug
development can take 10 years or more; studies to confirm therapeutic value in repurposing may take only six.

The MEPs against cancer (MAC) group focuses on several strategic issues in the fight against cancer. One of these is promoting equitable access to high-quality treatment and care. This also serves as a platform for promoting dialogue between those researchers exploring the potential of drug repurposing with those policymakers recognising the need to review the current drug regulatory pathway in Europe.

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There are currently about 130 existing drugs that have shown potential for repurposing in cancer, although more studies are needed. However, two key barriers are restricting the repurposing of these medicines.

The first is a lack of clear regulatory pathways. Current pharmaceutical regulations focus on the development of new medicines, not new indications for existing medicines. The second is a lack of financial incentives and research funding.

The pharmaceutical industry, including the generic sector, has little motivation to invest in the research needed to gain regulatory approval for a cancer indication for a drug that is o  patent. This is because there is no return on investment anticipated, given the lack of intellectual property protection and the low price of generic formulations.

Until recently, the topic of repurposing in Europe appeared to have been disregarded. A survey conducted by the Commission expert group on safe and timely access to medicines for patients (STAMP) concluded that only six out of 18 participating member states acknowledged repurposing and the regulatory barriers that hinder its development, while only one member state was exploring means for collaboration between generic producers and academics. STAMP has continued to examine the potential of repurposing over recent years.

A handful of academic centres and non-profit foundations in Europe are now supporting independent, translational research in repurposing.

In view of this, they are calling for new drug development tracks to be defined that complement the existing, predominantly commercial, development pathways.

The MAC group encourages this innovative work to explore the potential of drug repurposing for patients in need, our healthcare systems and all European citizens.

About the author

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