New cancer drugs: poorly evaluated, not very effective

Sadly, readers of *Prescrire* know only too well that most cancer drugs marketed since the beginning of the 21st century have been poorly evaluated and that their clinical benefit, when it exists, is usually modest (see also page 137).

Several reviews published in 2017 in a range of international journals have confirmed the extent of this phenomenon in Europe, in line with what had already been shown in the United States (1-4).

One study showed that during the period 2009-2013, out of 68 cancer indications authorised by the European Medicines Agency (EMA), 44 were lacking any proof of a survival advantage. For 36 authorised indications, there was still no evidence of a beneficial effect on survival or quality of life, at least 3.3 years after marketing. According to this study, and another covering the period 2009-2016, the survival gain, when there was any, was less than 3 months for half the patients (1,3).

Extraordinarily expensive for the community, but lucrative for companies.

Although providing little or no demonstrated progress for patients, the new cancer drugs are being sold by companies at higher and higher prices. One study showed that in France in 2016 the cost per year of life gained had reached 176 000 euros (5).

Based on financial data provided by pharmaceutical companies, authors in the United States estimated the R&D costs of 10 cancer drugs to be on average 900 million dollars per drug, which is a long way from the 2.7 billion alleged by an often-quoted study (6). After around 4 years of marketing, the sale of these drugs had brought the 10 companies concerned 7 times more in revenue than the cost of their R&D (6).

This market trend for expensive drugs with little or no clinical benefit is causing an unjustifiable drain on the finances of national health insurance systems, to the detriment of other expenditure in the public interest. Ultimately, this is probably not in the best interest of drug companies. It amounts, in effect, to financial speculation which nobody seems any longer to have the desire, or the ability, to control.

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Sources: **1-** Davis C et al. "Availability of evidence of benefits on overall survival and quality of life cancer drugs approved by European Medicines Agency: retrospective cohort study of drug approvals 2009-13" *BMJ* 2017; **359**: 13 pages. **2-** Grössmann N et al. "Five years of EMA-approved systemic cancer therapies for solid tumours - a comparison of two thresholds for meaningful clinical benefit" *Eur J Cancer* 2017; **82**: 66-71. **3-** Grössmann N and Wild C "Between January 2009 and April 2016, 134 novel anticancer therapies were approved: what is the level of knowledge concerning the clinical benefit at the time of approval ?" *ESMO Open* 2017; **1**: 6 pages. **4-** Prasad V "Do cancer drugs improve survival or quality of life?" *BMJ* 2017; **359**: 2 pages. **5-** French national insurance system "Améliorer la qualité du système de santé et maîtriser les dépenses. Propositions de l'Assurance Maladie pour 2018" 7 July 2017: 206 pages. **6-** Prasad V and Mailankody S "Research and development spending to bring a single cancer drug to market and revenues after approval" *JAMA Intern Med* 2017; **177** (11): 1569-1575.

EDITORIAL