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Record prices for pharma drugs

There have been some record-breaking prices set for drugs in recent months.

In October 2014, the US WAC price of Harvoni for the treatment Hepatitis C (HCV) was set at $1,125 per pill, equating to a cost of $94,500 for a 12-week course of treatment. This pricing has generated a great deal of media scrutiny and payer attention. Given the large HCV patient population, payers have been working hard at developing strategies to mitigate the budgetary impact of such HCV drugs, and implementing rules to ensure fair access of these drugs to patients who most need them.

Yet, Harvoni is by no means is the most expensive treatment on a per-patient basis. In December 2014, Blincyto was approved by the FDA to treat a type of leukemia and became the highest priced cancer drug at the cost of $178,000 per patient. It is the latest immunotherapy cancer drug to cost in excess of $100,000; others include Keytruda, Opdivo and Yervoy. Even these prices are far below the record price of €1.1M ($1.4M) that UniQure proposed for their ultra-orphan drug Glybera in November 2014. Glybera is used to treat lipoprotein lipase deficiency (LPLD), and is currently being assessed by the German regulators.

Trust in the pharma process is often missed

Such high prices for pharmaceuticals are on the minds of many of the payers and clinicians that I speak with during pricing research projects. They are also attracting some degree of media backlash – such as an article "Why Drugs Cost So Much" from Dr. Peter B. Bach, in the New York Times of January 14, 2015. Some of these comments express legitimate concerns about the value of individual drugs and how best to get value for money for these medicines on behalf of payers, hospitals and the patients themselves. Pharmaceutical companies should take account of such feedback.

Yet there is a danger of not seeing the wood from the trees.

What I think is often missed is trust in the process of how high pharma prices can incentivize pharmaceutical companies to focus on areas of high unmet medical need.

These high prices also encourage competition leading to potential price reductions, particularly at the end of patent life. In this way, high pharma prices have the potential to offer society a good return on investment for treating diseases where there is currently a high unmet need.

One point to make here is that the drug price and patent protection is indication-specific. A common practice for many of today's blockbuster compounds is for pharma companies to invest in testing them

in new diseases. If the trial data is positive, they are then in a position to set new prices for the same drug in each of these new indications.

HCV: A case study in how high prices have incentivized innovation

Hepatitis C is a therapy area where there is a legacy of high prices to spur innovation and competition.

In May 2011, the FDA approved Merck's Victrelis and Vertex's Incivek, the first HCV-specific DAAs. These came to the US market at a price from $26,400 - $48,400 per course (Victrelis) to $49,200 per course (Incivek). Yet these products have quickly become redundant, replaced by better drugs – Gilead's Sovaldi and then also Harvoni.

The high prices of HCV therapies are encouraging competition. AbbVie has just launched Viekira Pak; BMS is developing a pipeline of HCV treatments based on daclatasvir; and Merck made a multi-billion dollar purchase of Idenix in mid-2014 with the goal of bringing 'highly effective, once-daily, all oral, ribavirin-free, pan-genotypic' drugs to market.

Payers can make use of such competition to negotiate discounts and bring down the prices actually paid. As announced in Gilead's Q4 2014 earnings call (c.15 minutes in), by the end of 2014, US rebates for their HCV franchise were on average 46%; a change from 22% just 12 months before.

Pharmaceutical companies can respond, as best they can, by differentiating the value of their own drugs according to their specific clinical benefits. They can also choose to invest in testing their drugs for new indications and new treatment combinations. For example, Gilead is currently undertaking a range of clinical trials based on their sofosbuvir compound with different drug combinations, and with different patient populations. In this way pharmaceutical companies can aim to develop their sustainable pricing strategies, which can also encourage continued investment in this area.

Meanwhile for payers and users, over time the prospects look very positive for lower-priced, highly effective treatments for HCV.

Acute stroke: A case study in how low prices have restricted innovation

I would imagine there are many examples of therapy areas where 'low' pricing has restricted innovation. One area that I am personally familiar with is in acute stroke.

In 1996, Genetech launched Activase (alteplase / tPA) for the treatment of acute ischaemic stroke at a price of $2,200 per dose. At that time I was working at a UK-based market research agency, and we conducted a study about how acute stroke was being managed by PCPs, emergency physicians and neurologists in major markets. The study was purchased by around half a dozen pharmaceutical companies who were exploring whether to develop their own acute stroke drugs. Based on this work, I wrote an article in an industry magazine about the changing treatment of acute stroke, and confidently wrote about 'the promise of a new generation of drugs' for this condition. Indeed, in June 1997, my comments were picked-up for an article in the Times by Dr. Thomas Stuttaford.

My confidence was misplaced. None of these pharmaceutical companies took their interest in acute stroke further. Around this time, I had one memorable conversation with a buyer of the study which

gave me a clue about what was going on. After discussing the survey data he said that they had decided not to try and develop a drug to treat acute stroke. He said it was a matter of pricing. Given the projected low volume of potential administrations for this acute condition, they did not think they could charge enough to provide an adequate return on their investment.

Indeed, that seems likely to be an accurate assessment at that time. Genetech had been taking a lot of heat from politicians and the media for their pricing of Activase. On June 23, 1993, the Hon. Fortney Pete Stark in the House of Representatives complained about how "activase costs 10 times more than streptokinase", and quoting a Dr. Topol, that "*it would be ideal for there to be a substantive decrease in the cost of tPA*".

Recognising the need to properly incentivize drug development in the treatment of acute stroke, "The economic case for new stroke thrombolytics" was published in the journal 'Stroke' by SC Johnson in 2010. The paper argued that given the value of the drug from a health economic perspective, tPA was massively under-priced. A key conclusion was that "*if tPA was priced at $50,000/QALY, a standard benchmark for cost-effectiveness, it would cost $45,800 per dose and would be expected to generate $458 million annually for its manufacturer."*

Nearly 20 years on, Activase still remains the only FDA-approved medication indicated for the treatment of acute ischemic stroke.

There is some good news. In February 2015, the NEJM published results of a clinical trial using a clot-retrieval procedure which appears to significantly decrease the incidence of disability or death among those who have experienced acute ischemic stroke. Let's hope it becomes a breakthrough treatment in clinical practice. It has been a long time coming.

The need for payers and pharma to work together

One of the challenges of really trusting the pharmaceutical pricing process is that developing drugs takes such a long time. And the impact of not developing drugs can only become apparent after many years. Pricing decisions taken now can have an impact over the next decades.

This demonstrates the value of pharmaceutical companies and payers working closely together to determine disease priorities on an ongoing basis. It helps explain the value, and the success, of organizations such as ISPOR as payers get more involved in deciding what and how therapies become available to patients.

Dr. Peter B. Bach's article included a link to evidence of the rising cost of oncology drugs over the past 50 years. This is perhaps a trend that we should expect if we want to make further advances in drug development and tackle resistant unmet needs.

Intuitively it might seem as though the efforts of payers would reduce the price of new drugs, yet the net effect may have been the opposite. Payers tend to be looking for new drugs which can cost much more to develop. Payers tend to discourage me-too drugs, and encourage drugs which meet an unmet medical need, with evidence (e.g. head to head trial data versus gold standard rather than versus placebo) that meets HTA assessments.

The good news is that such high prices should encourage innovation and competition, and once a specific unmet need has been addressed, the price of treating that specific medical problem will likely come down over time. Pharmaceutical companies will then have to identify new unmet medical needs - and how to best price any effective new therapies they develop.