

‘DrugAbacus’ Pricing Tool Helps Payers Calculate Fair Value Of Cancer Drugs

► By Cathy Kelly

MEMORIAL SLOAN KETTERING’S PETER BACH UNVEILS a web-based drug pricing tool that uses several value measurements, including R&D investment and novelty, to identify the appropriate price for cancer drugs.

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A cancer drug pricing tool developed by Memorial Sloan Kettering under the direction of Peter Bach, director of the hospital’s Center for Health Policy and Outcomes, uses several different value measurements to identify the appropriate cost for a treatment, which can then be compared to the actual cost being charged.

The web-based tool, known as DrugAbacus (www.drugabacus.org), was publicly unveiled June 18. It is equipped to calculate value-based prices of the original indication of 54 cancer drugs approved between 2001 and 2015. Future iterations of the tool will cover additional indications and a broader array of drugs, including specialty treatments outside of oncology.

The tool is meant to demonstrate the feasibility of setting drug prices based on a value calculus in a consistent and transparent way.

“It’s a proof of principle” showing “it would be possible to have a value-based pricing system. It would be possible to articulate the [value] domains that we care about,” Bach said in an interview. He also noted the tool is “version 1.0,” and may evolve based on input from stakeholders.

It is intended to “create a platform where you could have an alternative price,” Bach explained.

“Right now [pricing] transactions start with pharma saying, ‘here’s my sticker price’ and the payer saying, ‘what’s my rebate?’” But, “none of that has anything to do with the value of the product to patients or society,” he pointed out. “I’d love to have a third person sitting at the table with a web-based tool saying, ‘OK, here’s a price that actually makes sense.’”

The website opens with the message, “Welcome to DrugAbacus, an interactive exploration of drug pricing.” It pictures containers of **Merck & Co. Inc.** Keytruda (pembrolizumab) and **Novartis AG’s** Gleevec (imatinib) and says that Keytruda is priced at \$2,500 and Gleevec “costs about \$9,000,” adding “is that the right price? Should they cost more? Or less?”

DrugAbacus is designed to inform pricing considerations among payers and drug firms as well as health care systems and policy experts. It is part of a growing effort to link drug pricing with value. Another such project is a methodology for valuing cancer drugs being developed by the American Society for Clinical Oncology (*Also see “ASCO’s Tool For Scoring Cancer Drug Value To Be Released In Early 2015” - Pink Sheet, 10 Oct, 2014.*). A draft version of the ASCO methodology is scheduled to be released June 22.

The six value metrics that go into the DrugAbacus price calculations include efficacy, tolerability, novelty, research and development costs, rarity of the condition treated and the burden of illness. Each metric can be weighted according to importance on a sliding scale. The weight assigned to a domain impacts the price calculation.

Promoting Innovation Through Pricing

Bach pointed out the tool differs from approaches to value-based pricing assessments in Europe in that it



goes beyond a consideration of benefit in terms of quality-adjusted life years (QALY) and takes into account metrics aimed at encouraging and sustaining innovation, such as R&D investment, drug novelty and rarity of conditions.

It looks “quite a bit different from something like the U.K.’s NICE system, which focuses solely on the single domain of quality-adjusted life years to a large extent,” he said. “This incorporates domains that I think matter to the [drug] industry and to the innovation cycle.” The National Institute for Health and Care Excellence (NICE) is the U.K.’s official health technology assessment body.

DrugAbacus allows users to compare the calculated value-based price and actual prices for the drugs. Actual prices are based on estimated monthly prices for drugs using allowable Medicare charges. Average sales prices for Part B drugs, using the ASP plus 6% payment formula, are drawn from quarterly files released by CMS. Prices for Part D drugs are retrieved from the CMS “Plan Finder” tool. Prices are relevant to the typical duration of treatment associated with the benefit in pivotal clinical trials.

The efficacy of drugs is measured as the improvement in overall survival, or a surrogate for overall survival that has been accepted by FDA for approval, such as improvement in either progression-free survival or in response rates. Drug toxicity was characterized from reports of the frequency and severity of side effects experienced by patients receiving the drug relative to the side effects those patients would otherwise experience.

Drug novelty was scored by two clinical experts, who classified drugs based on mechanism of action, novel delivery, new methods of reaching targets or whether they were next-in-class products.

R&D investment was determined based on the number of human subjects enrolled in the approval trial for the first indication. “This imperfect surrogate is reasonable as in most cases the cost of human subjects research is a major component of overall R&D expense,” the DrugAbacus site explains.

Rarity of disease was determined from the projected incidence of the disease in 2015 as described by the American Cancer Society. Population health burden was determined from the estimated years of life lost due to the disease in the U.S. population and was drawn from publicly available resources.

DrugAbacus is based on a drug valuation tool called Rx Scorecard developed by Real Endpoints, a health care analytics and consulting group. Real Endpoints CEO Roger Longman pointed out in an interview that tools like DrugAbacus can help “move discussions ahead” between payers and pharma on outcomes-based or indication-based pricing using a transparent assessment of value.

Several major payers are pushing outcomes-based contracts for drugs, and manufacturers are increasingly engaging in discussions for such arrangements (*Also see “Novartis’ Shaw Pushing For U.S. Outcomes-Based Reimbursement” - Pink Sheet, 9 Jun, 2015.*). Memorial Sloan Kettering’s Bach recently published an article suggesting ways to structure indication-based pricing for oncology drugs (*Also see “Approaches To Indication-Based Pricing For Cancer Drugs Offered In JAMA Article” - Pink Sheet, 20 Oct, 2014.*).

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