Value Based Payment (VBP) for Pharmaceuticals

David B. Nash, MD, MBA
Dean
Jefferson College of Population Health
901 Walnut Street – 10th Floor
Philadelphia, PA 19107
215-955-6969 (Office) 215-923-7583 (Fax)

david.nash@jefferson.edu
jefferson.edu/populationhealth
blogs.jefferson.edu/nashhealthpolicy.com
www.facebook.com/jeffersonjcph
twitter.com/JeffersonJCPH
Objectives

• Describe the need for value based pricing in reimbursement

• Understand and evaluate current examples of value based pricing of pharmaceuticals

• Provide a pathway for stakeholders involved to move forward and improve upon value based pricing
Why is VBP in pharmaceutical reimbursement important?
## Country Rankings

### Overall Ranking (2013)

<table>
<thead>
<tr>
<th>Country</th>
<th>AUS</th>
<th>CAN</th>
<th>FRA</th>
<th>GER</th>
<th>NETH</th>
<th>NZ</th>
<th>NOR</th>
<th>SWE</th>
<th>SWIZ</th>
<th>UK</th>
<th>US</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quality Care</td>
<td>4</td>
<td>10</td>
<td>9</td>
<td>5</td>
<td>5</td>
<td>7</td>
<td>7</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td>11</td>
</tr>
<tr>
<td>Effective Care</td>
<td>2</td>
<td>9</td>
<td>8</td>
<td>7</td>
<td>5</td>
<td>4</td>
<td>11</td>
<td>10</td>
<td>3</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>Safe Care</td>
<td>4</td>
<td>7</td>
<td>9</td>
<td>6</td>
<td>5</td>
<td>2</td>
<td>11</td>
<td>10</td>
<td>8</td>
<td>1</td>
<td>11</td>
</tr>
<tr>
<td>Coordinated Care</td>
<td>3</td>
<td>10</td>
<td>2</td>
<td>6</td>
<td>7</td>
<td>9</td>
<td>11</td>
<td>4</td>
<td>1</td>
<td>7</td>
<td>6</td>
</tr>
<tr>
<td>Patient-Centered Care</td>
<td>4</td>
<td>8</td>
<td>9</td>
<td>10</td>
<td>5</td>
<td>2</td>
<td>7</td>
<td>11</td>
<td>3</td>
<td>1</td>
<td>11</td>
</tr>
<tr>
<td>Access</td>
<td>5</td>
<td>8</td>
<td>10</td>
<td>7</td>
<td>3</td>
<td>6</td>
<td>11</td>
<td>9</td>
<td>2</td>
<td>1</td>
<td>4</td>
</tr>
<tr>
<td>Cost-Related Problem</td>
<td>6</td>
<td>11</td>
<td>10</td>
<td>4</td>
<td>2</td>
<td>7</td>
<td>8</td>
<td>9</td>
<td>1</td>
<td>3</td>
<td>5</td>
</tr>
<tr>
<td>Timeliness of Care</td>
<td>7</td>
<td>9</td>
<td>8</td>
<td>7</td>
<td>5</td>
<td>3</td>
<td>1</td>
<td>4</td>
<td>2</td>
<td>1</td>
<td>11</td>
</tr>
<tr>
<td>Efficiency</td>
<td>4</td>
<td>10</td>
<td>8</td>
<td>9</td>
<td>7</td>
<td>4</td>
<td>3</td>
<td>4</td>
<td>2</td>
<td>1</td>
<td>11</td>
</tr>
<tr>
<td>Equity</td>
<td>4</td>
<td>8</td>
<td>1</td>
<td>7</td>
<td>5</td>
<td>9</td>
<td>6</td>
<td>3</td>
<td>4</td>
<td>1</td>
<td>11</td>
</tr>
<tr>
<td>Healthy Lives</td>
<td>4</td>
<td>8</td>
<td>1</td>
<td>7</td>
<td>5</td>
<td>9</td>
<td>6</td>
<td>3</td>
<td>4</td>
<td>1</td>
<td>11</td>
</tr>
</tbody>
</table>

### Health Expenditures/Capita, 2011**

<table>
<thead>
<tr>
<th>Country</th>
<th>AUS</th>
<th>CAN</th>
<th>FRA</th>
<th>GER</th>
<th>NETH</th>
<th>NZ</th>
<th>NOR</th>
<th>SWE</th>
<th>SWIZ</th>
<th>UK</th>
<th>US</th>
</tr>
</thead>
<tbody>
<tr>
<td>Health Expenditures/Capita, 2011**</td>
<td>$3,800</td>
<td>$4,522</td>
<td>$4,118</td>
<td>$4,495</td>
<td>$5,099</td>
<td>$3,182</td>
<td>$5,669</td>
<td>$3,925</td>
<td>$5,643</td>
<td>$3,405</td>
<td>$8,508</td>
</tr>
</tbody>
</table>

Notes: * Includes ties. ** Expenditures shown in US FPP (purchasing power parity); Australian $ data are from 2010.

Where are we and how did we get here?
Prescription Drug Trends

After Several Years of Modest Growth, Prescription Drug Spending Rose Sharply in 2014

Costly New Specialty Drugs Such as Hepatitis C and Cancer Drugs Are a Major Driver of Spending

Prescription drug costs are projected to grow more modestly in coming years, averaging about 5% annual per capita growth through 2024.

What is value and who defines it?
Current Landscape
What do Value-Based Pricing Agreements Look Like?

- Indication-based drug management
- Early discontinuation refund
- Improved outcomes

- Express Scripts Manufacturer
- Sponsor Health Plan Employers
- Patient
Indication-Specific Pricing

Effects of Uniform Pricing versus Indication-Based Pricing

What do Value-Based Pricing Agreements Look Like?

- Outcomes-based contract for Januvia & Janumet. Merck’s rebates are based on drugs’ ability to help T2DM population achieve or maintain treatment objectives

- AetnaCare collaboration to support treatment adherence, meet social support needs, and promote healthy lifestyle behaviors in T2DM and HTN patients
What do Value-Based Pricing Agreements Look Like?

- Outcomes-based contract for Avastin in NSCLC patients. The shorter the PFS in a patient, the greater the rebate to Priority Health. If patient remained progression-free for over 6 months, no rebate.

- Data came from claims, imaging, & EHR. Genentech supported Priority Health’s internal team with a team of medical and privacy professionals.
Exhibit 1. Example contract calculation (not reflective of actual financial terms)

Median PFS* for first-line disease in pivotal RCT* 12 months
For patient A, the following is observed:
  PFS 10 months
  Goal missed by/unrealized benefit 2 months
Realized benefit 10 / 12 = 83%
Unrealized benefit 2 / 12 = 17%

Risk-sharing agreement if median PFS is not met 50%†
  Duration of treatment 10 months
  Drug cost per month $10,000

Risk-sharing calculation
Refund amount = (expected – actual) / expected × risk share × treatment duration × cost/month
= (12 mo – 10 mo) / 12 mo × 50% shared risk × 10 months treatment × $10,000/mo = $8,333 rebate

In this example, the manufacturer would rebate the payer $8,333, which results in a net yield of ($100K – $8.3K) / $100K, or ~92%.

*PFS=progression-free survival, RCT=randomized clinical trial.
†Risk-sharing amount selected for illustrative purposes only; not reflective of actual financial terms.
What do Value-Based Pricing Agreements Look Like?

- 1st outcomes-based contract to cover Medicaid patients. Contract covers select MS drugs.

- Milestone in pharma/patient/payer partnership in VBC, especially for complex, high-cost conditions like MS.
What do Value-Based Pricing Agreements Look Like?

- 2015 outcomes-based contract (pay-for-performance): Amgen provides discount to Harvard Pilgrim if
  - (1) reduced LDL-C levels in Repatha patients is lower than results seen in clinical trials
  - (2) drug utilization exceeds certain levels
- 2017 contract (CV outcomes): Harvard Pilgrim receives full refund if patient is hospitalized with MI or stroke after taking Repatha for 6+ months & is compliant with medication
### What do Value-Based Pricing Agreements look like?

<table>
<thead>
<tr>
<th>Therapeutic Area</th>
<th>Drug</th>
<th>Pharmaceutical Company</th>
<th>Payer</th>
<th>Summary</th>
</tr>
</thead>
<tbody>
<tr>
<td>Osteoporosis</td>
<td>Actonel</td>
<td>SANOFI</td>
<td>hap</td>
<td>Pharma will cover cost of average medical expenses for any non-spinal fractures among Health Alliance members enrolled in Fracture Protection program.</td>
</tr>
<tr>
<td>Acute Coronary Syndrome</td>
<td>BRILINTA</td>
<td>AstraZeneca</td>
<td>Harvard Pilgrim HealthCare Foundation</td>
<td>Harvard Pilgrim will monitor Brilinta’s impact on hospitalizations among ACS patients after 1st discharge.</td>
</tr>
<tr>
<td>Heart Failure</td>
<td>Entresto</td>
<td>NOVARTIS</td>
<td>Cigna</td>
<td>If reduction in hospitalizations were not met, manufacturer would be compensated at a lower level</td>
</tr>
<tr>
<td>Diabetes</td>
<td>Medtronic</td>
<td>Medtronic</td>
<td>aetna</td>
<td>Express Scripts is reimbursed if patients stop treatment before reaching 3rd refill</td>
</tr>
<tr>
<td>Lung Cancer</td>
<td>IRESSA</td>
<td>AstraZeneca</td>
<td>EXPRESS SCRIPTS</td>
<td>Medtronic pays rebates to Aetna if patients switch from insulin injections to Medtronic's insulin pump and do not meet specified outcomes.</td>
</tr>
</tbody>
</table>
Future Outlook
Association of Reference Pricing with Drug Selection and Spending

James C. Robinson, Ph.D., M.P.H., Christopher M. Whaley, Ph.D., and Timothy T. Brown, Ph.D.

ABSTRACT

BACKGROUND
In the United States, prices for therapeutically similar drugs vary widely, which has prompted efforts by public and private insurers to steer patients toward the lower-priced options. Under reference pricing, the insurer or employer establishes a maximum contribution it will make toward the price of a drug or procedure, and the patient pays the remainder.
Data Needs for the Future

Data Platforms
• Complex infrastructure required to collect big data
• Implementation is costly and requires robust IT system
• Personal EMRs may become another platform for data collection

Realistic Outcomes
• Start with simple, attainable outcomes
• Adapt outcomes and contracts based on clinical relevance and availability
  • Ex. PCSK9 inhibitors
Data Sharing and Transparency

- Need to share successes and failures
- Transparency would encourage others to become involved and see benefits of taking on risk
Future Engagement of All Stakeholders

- Involve patients & providers alongside manufacturer and payer
  - Target patients who are members of integrated delivery systems or Accountable Care Organizations
  - Provide incentives for patients who are compliant
- Managed care organizations take on more risk in the success of the contract
  - Adherence, patient education, out-of-pocket costs
Future Policy Issues

- Possible expansion of reference pricing
- Work with the existing pricing structure
  - Medicaid Best Price, Medicare Part B, and 340 B are not all compatible with VBP arrangements
- Some states in the US are taking matters into their own hands to control drug prices