Reimbursement challenges with new emerging cancer therapies

Some ways moving forward

Nathalie Barbier, Novartis

EFPSI/BBS Basel, 23 June 2015
Disclaimer

The views expressed in this presentation are the personal views of the author and may not be understood, interpreted, or quoted as being made on behalf of, or reflecting the position of any other companies, agencies or parties cited in this presentation.
Agenda

- New emerging cancer therapies
- Challenges
- Some ways moving forward
New emerging cancer therapies
Unmet Medical Need: The Value of **Innovative Cancer Medicines**

**PATIENTS**
- Better Survival
- Enhanced Quality of Life
- A Wider Range of Treatment

**SOCIETY**
- Reducing Mortality & Economic Losses
- Preserving Working/Productive years
- Reducing Health Care Costs

**FUTURE GENERATIONS**
Continuous Improvement
Decades of Therapeutic Value
Value Beyond Patent Life
New emerging cancer therapies

What are these emerging innovative therapies? How they relate to each other to fulfill the still unmet medical need?

- Established cancer treatment
- Targeted therapy
- Combination therapy
- Companion diagnostic
- Immuno-therapy
- Future therapy
New emerging cancer therapies

*Increasing need to treat, different ways to treat, big added value but increasing cost and fixed budget*

- 11 million patients will die in 2030
- Aging population -> increase number of patients with cancer
- Cancer ➔ chronic disease ➔ chronic treatment
  - 1st line ➔ 2nd line ➔ 3rd line therapies

$20,000–40,000 per year
$120-$1500 companion diagnostic cost
$20,000–40,000 additional therapy on top

$3,000 Total

Other costs

Total

6 | EFSP/BBS | N. Barbier | 23 June 2015 | Reimbursement Challenges in new emerging cancer therapies | Public
Challenges

The general challenge from all stakeholders

Payer challenges:
- fixed budgets
- funding therapies for patients that will not benefit the majority of patients
- paying for treatment failures/multiple sub-optimal therapies over time

Industry challenges:
- One EU submission but numerous HTA bodies with their own health reimbursement policy
- Increase development cost and complexity
- Generics/Biosimilar

Patient challenges:
Have assess to safe and efficient drugs at the right price

Physician challenges:
Give the right drugs to the right patient
Challenges targeted therapy /immunotherapy (1/3)

*Clinically important gains and better drug compliance but increase in health care expenditures*

- **Resistance**
  - need combination therapies
  - 2\textsuperscript{nd} line, 3\textsuperscript{rd} line therapies

- **Side effects (liver toxicity, diarrhea, rash)**
  - Might lead to better efficacy in some cases
  - Benefit/Risk/Cost effectiveness
Challenges targeted therapy /immunotherapy (2/3)

Clinically important gains and better drug compliance but increase in health care expenditures and complexity

- Companion diagnostics development
- Difficult to develop even if target known (Ras inhibitor, Ras mutation ¼ cancer)
- Immunotherapy:
  - Unknown future competitive landscape at the time of start of development
  - Delayed response
  - Variable length of treatment
  - Non oncology indications:
    - Different dose => challenge in price negotiation
- Orphan disease
  - single arm trial, phase II
Challenges targeted therapy/immunotherapy (3/3)

Are all the parameters taken into account to have a fair evaluation?

- Cost effectiveness, cost per QALY, ICER
- Risk of underestimation of the total clinical and economic value in case of
  - Minimal additional effect on OS
  - Minimal additional impact on PFS
- But
  - Better safety profile
  - Better QoL
  - Less need of 2nd, 3rd line therapies
  - Less interventions like hospitalizations
Prostate cancer immunotherapy, 4.1-mo median survival benefit

**US**
- 2010
- $93,000 per treatment
- $280,000 cost per life year gained

**EU**
- not acceptable cost effectiveness ratio for some EU countries
- 2014, £50,000 cost per QALY,
challenges
Zytiga® (abiraterone): rejection in some EU countries but negotiation still possible

- Prostate cancer immunotherapy therapy

Sweden agency, TLV
- Costs per QALY over the $1 million
- No to reimbursement application

NICE /Scottish Medicines Consortium (SMC)
- rejected reimbursement.
- However, after discussions NICE accepted reimbursement in major indication
- But discount in price with cost per QALY < £50,000
Challenges Companion diagnostics

*Support targeted therapies but additional costs and not always easy to develop*

Target patients who respond or have better safety

Less extensive programs, with less patients and shorter review

**But**

- Additional cost to treatment

- Need to have clinical utility in order to be reimbursable
  - Evidence of improved measurable clinical outcomes
  - Evidence of test’s usefulness
  - Added value to patient management decision-making compared with current management without testing

- Companion diagnostic development
  - reliable, accurate, and clinically meaningful (false positive, false negative)
Challenges Companion diagnostics

Yervoy (*Human monoclonal antibody for malignant melanoma*) and biomarker not well identified

**FDA**
- approved in March 2011

**NICE**
- Cost per QALY too high: £80,000
- “no patient characteristics or biomarkers have yet been identified to help identify this small group of people most likely to gain long-term benefit from receiving ipilimumab”
Challenges Companion diagnostics

Xalkori (locally advanced or metastatic NSCLC) with abnormal ALK gene: too costly to test the entire population

**FDA approved**
- $115,200 per annum (approximately $9,600 per month)

**NICE negative opinion**
- cost per year £78,000
- Cost ALK testing £900
- but low prevalence of ALK translocations in advanced NSCLC patients
  - Need to test all advanced NSCLC patients in order to identify ALK-positive patients
  - Testing all advanced NSCLC patients might not to be cost effective
Some ways to move forward: Payers (1/2)

“Total” health care solution

- Better prevention policy?
  - Vaccination HPV
  - Mammography (France policy)
  - Identifications of patients at risk and follow-up

- More coordination, collaboration between EU HTA bodies?
  - One EU submission but numerous HTA bodies with their own health reimbursement policy
  - Use same/common ways of appraising?
Some ways to move forward: Payers (2/2)

Other evaluations?

- Cost per QALY, ICER
  - Cost per QALY threshold increase for cancer therapies in some EU countries?
  - Multiple threshold for different populations/indications?

- Other innovative ways of evaluation?
Some ways to move forward: Industry (1/2)

Early planning and have right tools for value evaluation

- Engage earlier in the process Payers, Physicians and Patient organizations

- PROs
  - Include value components/PRO into drug-development programs early
  - Choose or develop PROs able to capture more subtle yet clinically important changes in manifestation of symptoms

- Need to carefully evaluate:
  - comparator in phase III
  - Phase IV
  - Indirect comparison

- Companion diagnostic developers/drug developers
  - Companion diagnostic part of the overall price (Pfizer Xalkori® (crizotinib) lung cancer, Roche Zelboraf® (vemurafenib))
Some ways to move forward: Industry (2/2)

Other ways of evaluations and negotiations

- Other statistical/evaluation analyses:
  - Multi criteria decision analysis (MCDA) alternative to cost per QALY?
    - to better capture other dimensions of cost and benefit
      - favorable safety
      - reduction in use of cytotoxic regimens/surgeries/hospital days
      - improved quality of life
      - Improved various social values/enhanced well-being
  - Joint modeling PFS/PRO or OS/PRO in Phase III
  - Other estimation methods for Minimum Clinical Important Difference (MCID)

- Better/more use of RWE/Big data
  - “Big Data for Better Outcomes” program at the European Federation of Pharmaceutical Industries and Associations (EFPIA)

- Risk sharing schemes
Conclusion

- Early planning and interactions with HTA bodies and other stakeholders
- Use/development of new evaluation methods
- More standardization
- Better collaboration between the different stakeholders

➢ To get optimal therapies to patients at the right price
Some references

- Alex Kudrin, Reimbursement challenges with cancer immunotherapeutics
- Targeted Cancer Therapies Fact Sheet - National Cancer Institute
- Bengt Jönsson, Cancer vaccines and immunotherapeutics, Challenges for pricing, reimbursement and market access Human Vaccines & Immunotherapeutics 8:9, 1360-1363; September 2012; Landes Bioscience
- Peter J. Neumann, Updating Cost-Effectiveness — The Curious Resilience of the $50,000-per-QALY Threshold; n engl j med 371;9