



**Health Service Reimbursement:  
Early Benefit Assessment of New Drugs in Germany**

19th Congress of the EAHP  
Barcelona, 26-28 March 2014

Katrin Nink



**Conflict of interest**

**Nothing to disclose**

**(Research Associate at IQWiG)**

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## Agenda

- **IQWiG – Background**
- **Reimbursement of drugs in Germany**
- **Early benefit assessments: framework, methods, results**

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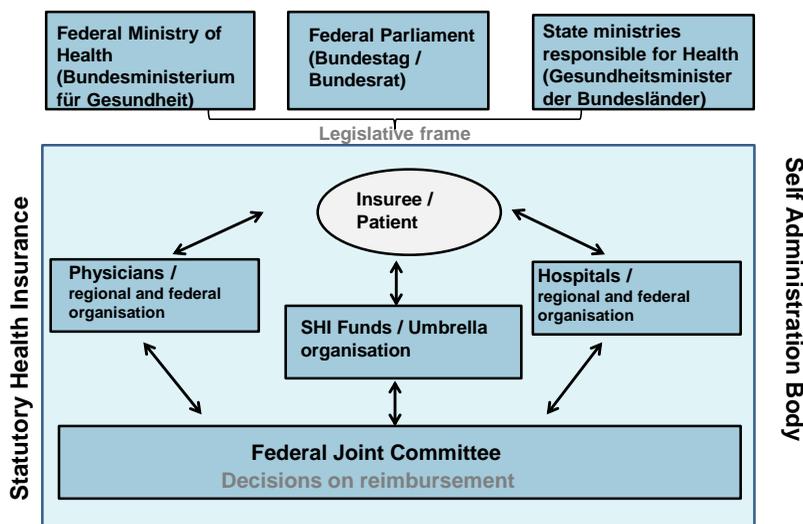
## The German health care system I

- **Statutory health insurance (SHI) funds:** cover approx. 90% of population in Germany
- **Financing:** contributions by employers and employees
- **Structure:** public-law corporations, financially and organizationally independent
- **Solidarity principle:** each insured person receives the health care service that is medically necessary, regardless of income, amount of contributions paid, or morbidity risks

## The German health care system II

- Large sections of the health care system are shaped by self-government via contracts that are concluded with the health care providers
- Legal basis: Social Code Book V (SGB V):
  - Provides framework for reimbursed health care services (“benefits catalogue”)

## Federal Joint Committee – decision body for reimbursement



Adapted from Health Care Systems in Transition: European Observatory on Health Care Systems, WHO

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7

## Institute for Quality and Efficiency in Health Care (IQWiG)

- IQWiG was founded as an independent scientific institute by a health care reform in 2004
- The legal basis of the work of IQWiG is the Social Code Book V (SGB V)
- IQWiG runs under the umbrella of a private-law foundation, financed through levies for inpatient and outpatient medical treatment (SHI funds)



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8

## IQWiG's tasks according to § 139a SGB V

- IQWiG produces independent, evidence-based reports e.g. on:
  - Drugs (benefit and cost-benefit assessment)
  - Non-drug interventions (e.g. surgical procedures, medical devices, diagnostic and screening methods)
  - Clinical practice guidelines (CPGs) and disease management programmes (DMPs)
- In addition, IQWiG provides easily understandable health information for patients and the general public



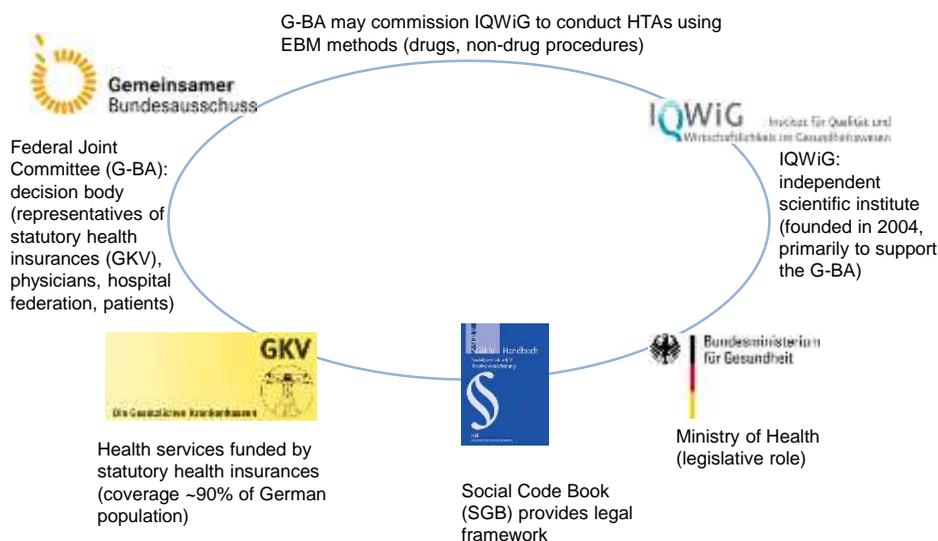
<http://www.informedhealthonline.org/informed-health-online.2.en.html>

<http://www.gesundheitsinformation.de/startseite.2.de.html>

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9

## Legal and organizational background – HTA in Germany



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10

## Transparency

The screenshot shows the IQWiG website homepage. At the top, there is a navigation bar with the following items: **Methods**, **Projects & results**, **Participation**, **Events**, and **Press**. Below the navigation bar, there is a section titled "Medicine put to the test" with a sub-header "As an independent scientific institute, IQWiG examines the benefits and harms of medical interventions for patients. We provide information about the advantages and disadvantages of examination and treatment methods in the form of scientific reports and easy-understandable health information." To the right of this section is a search box labeled "Search". Below the search box, there is a "Latest news" section with two articles:

- Press Releases**: **Minor added benefit of inhaled corticosteroids in COPD** (2014-02-17) Adults with COPD of moderate or severe severity grade with no more than 2 flare-ups per year have fewer breathing difficulties when treated with the drug combination. [Read more](#)
- Current commenting procedures (Peerings)**: **Afatinib: added benefit depends on mutation status**

At the bottom left of the screenshot, the number "11" is visible. At the bottom right, the text "26-28 March 2014 - EAHP" is visible.

**IQWiG** Institut für Qualität und  
Wirtschaftlichkeit im Gesundheitswesen  
*Institute for Quality and Efficiency in Health Care*

## General Methods<sup>a</sup>

Version 4.1 of 28 November 2013

[https://www.iqwig.de/download/IQWiG\\_General\\_Methods\\_Version\\_%204-1.pdf](https://www.iqwig.de/download/IQWiG_General_Methods_Version_%204-1.pdf)

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## Reimbursement of drugs in Germany

- Expenditures SHI for drugs (2012): 30 billion €
- Licensed drugs can be prescribed by physicians immediately after licensing
- Prices are specified by drug manufacturers (regulation only for margins in distribution chain)
- SHI funds must reimburse licensed drugs
- Federal Joint Committee may regulate

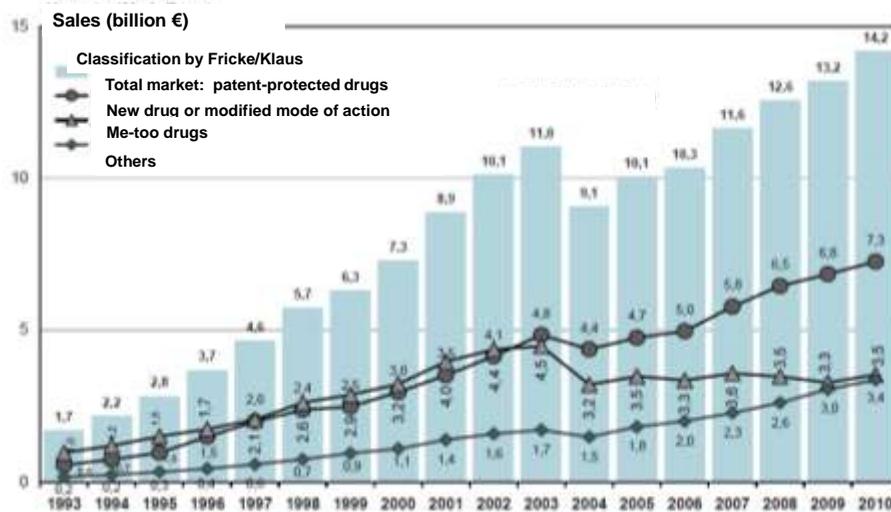
## Instruments for cost-containment and price regulation

- Reference pricing (since 1989), predominantly for generic drugs
- Discount agreements between individual SHI funds and drug manufacturers (since 2007: obligation for pharmacies to dispense discounted drugs)
- Temporary cost-containment measures: price moratorium (until 2017), price reductions, legally implemented discounts (drug manufacturers, pharmacies), co-payments of insured persons

## Regulations on drugs in the hospital sector

- Hospital-specific positive lists for drugs
- Diagnosis-Related-Groups (DRG) system: drug costs included in flat-rate reimbursement
- Special prices for expensive drugs (e.g. cancer drugs)

## Turnover of patent-protected drugs before AMNOG\*



\*Act on the Reform of the Market for Medicinal Products

Source: WIdO 2011 [http://www.wido.de/fileadmin/wido/downloads/pdf\\_arzneimittel/wido\\_arz\\_pk\\_avr2011\\_0911.pdf](http://www.wido.de/fileadmin/wido/downloads/pdf_arzneimittel/wido_arz_pk_avr2011_0911.pdf)

26-28 March 2014 - EAHP

17

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26-28 March 2014 - EAHP

18

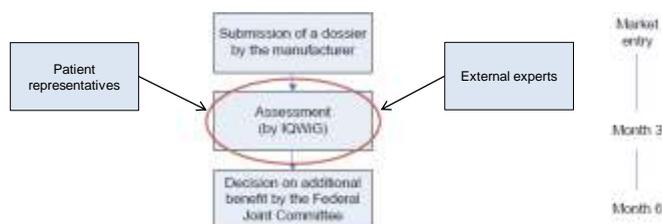
## AMNOG – new legislation, new HTA products

- New law to reorganize pharmaceutical market for SHI
- Came into force on 01/01/2011
- § 35a SGB V directly concerns early benefit assessment of drugs:
  - For new chemical entities / new indications
  - Requirement linked to market entry
  - Now onus of proof on drug manufacturer to demonstrate added benefit (vs. an appropriate comparator) – submission of a dossier
  - Results used for price negotiations (not for the decision: reimbursement yes/no)

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19

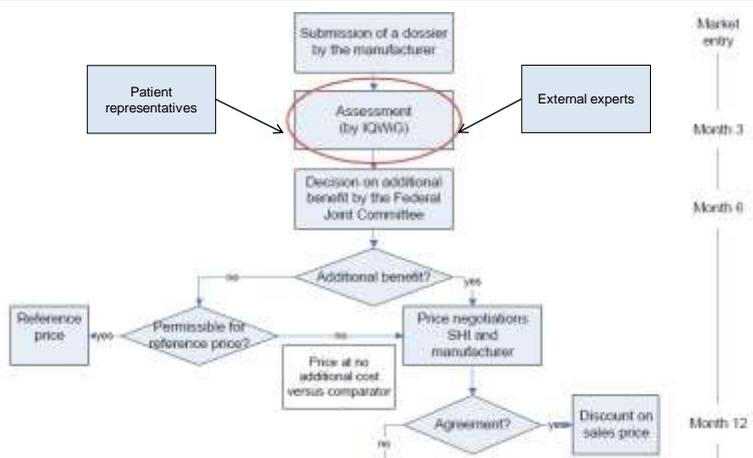
## Drug assessment according to AMNOG



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20

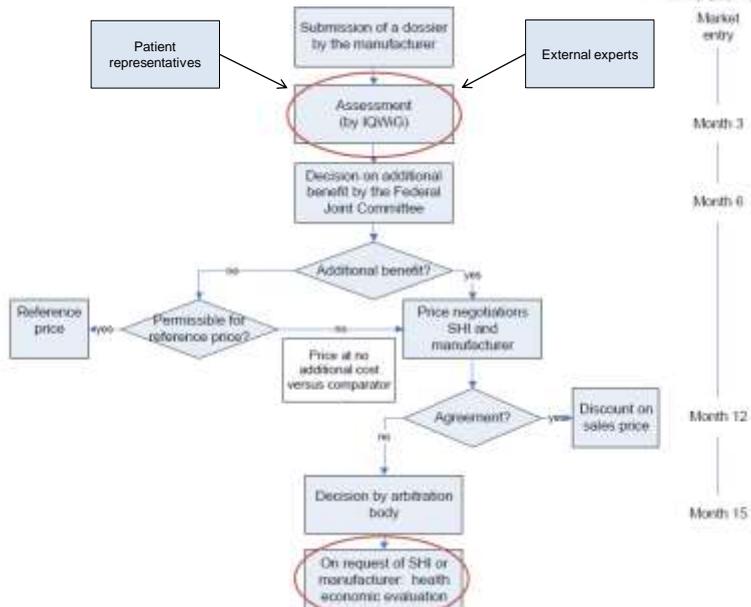
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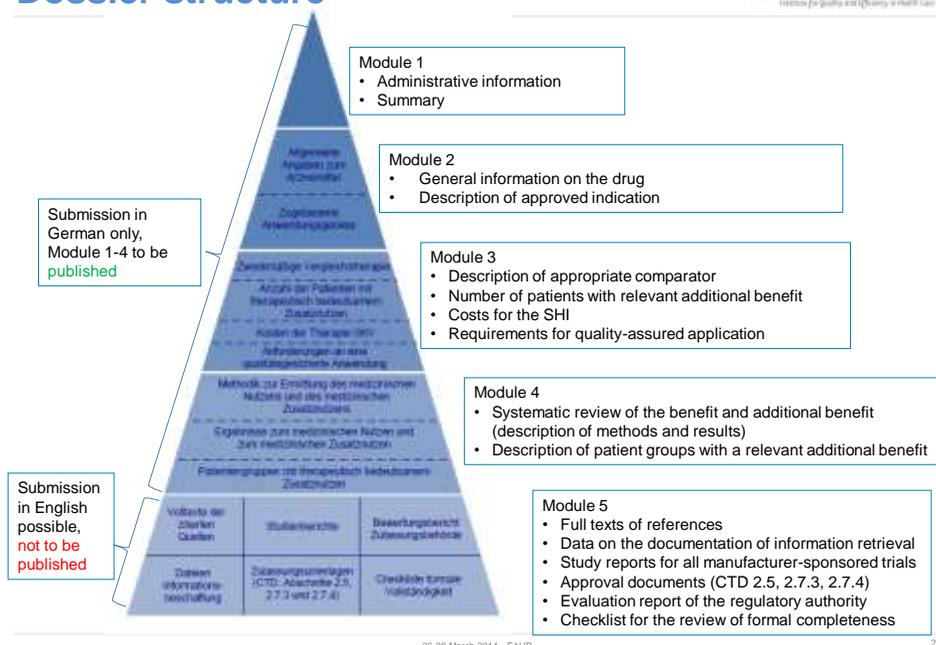
21

## Drug assessment according to AMNOG



22

## Dossier structure



## Appropriate comparator therapy (ACT)

- Specified by G-BA
- If requested, advice on ACT is offered by G-BA to drug manufacturer
- Precondition for ACT: approved and reimbursable
- Decision criteria for selection of ACT:
  - Evidence of benefit for patients; tested in clinical practice

## Early benefit assessments

- Legal obligation for the manufacturer of the drug under assessment to provide all available evidence for the HTA
  - Study reports (including study protocols) of all studies on the drug under assessment which have been sponsored by the manufacturer
  - All available information on ongoing and terminated studies which have been sponsored by the manufacturer or in which the manufacturer was financially involved
  - Assessment reports of regulatory authorities
  - Corresponding information about studies by third parties as available

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25

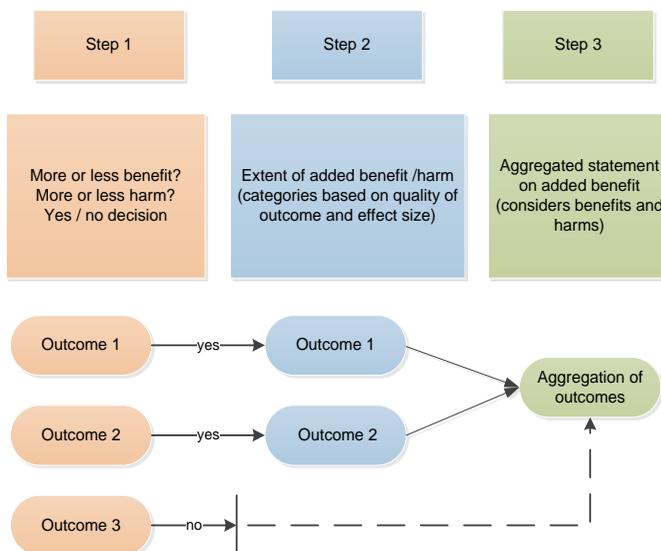
## General steps from formulating question to decision on therapeutic value

- Identify PICO
- Appropriate comparator used?
- Identify relevant clinical trials (direct / indirect comparison)
- Identify patient-relevant outcomes (selection and assessment of outcomes following EbM methods)
- Determine treatment effects
- Consider benefits **and** harms
- Consider uncertainty / risk of bias
- Aggregate information on various outcomes

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26

## Process of assessing “added benefit”



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27

## GOAL:

⇒ Adequately capture benefits *AND* harms...

**benefits**

**harms**

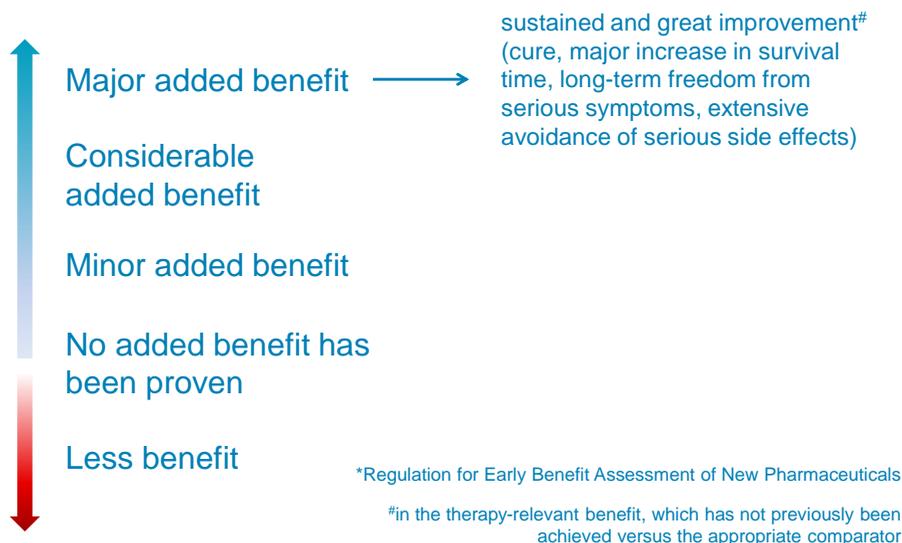


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28

## AMNOG – extent of ‘added benefit’

### Criteria in accordance with AM-NutzenV\*

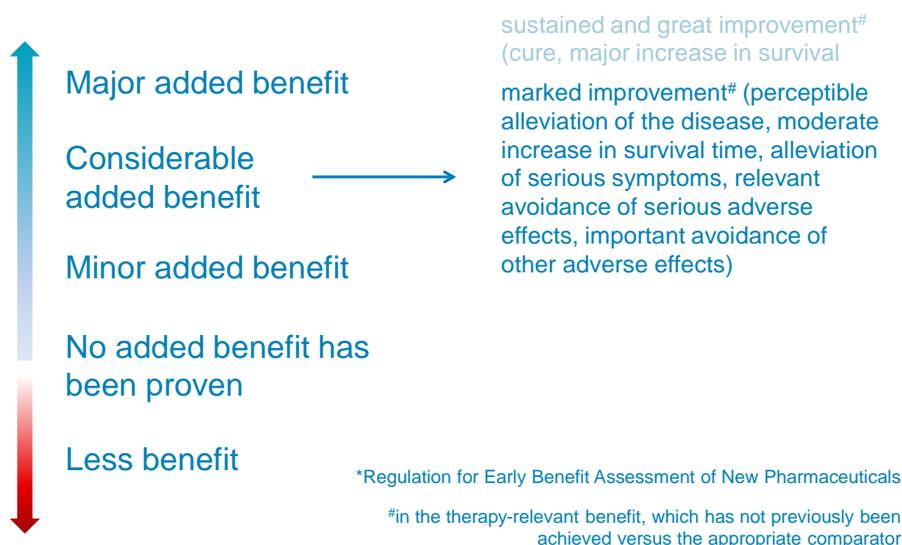


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29

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26-28 March 2014 - EAHP

30

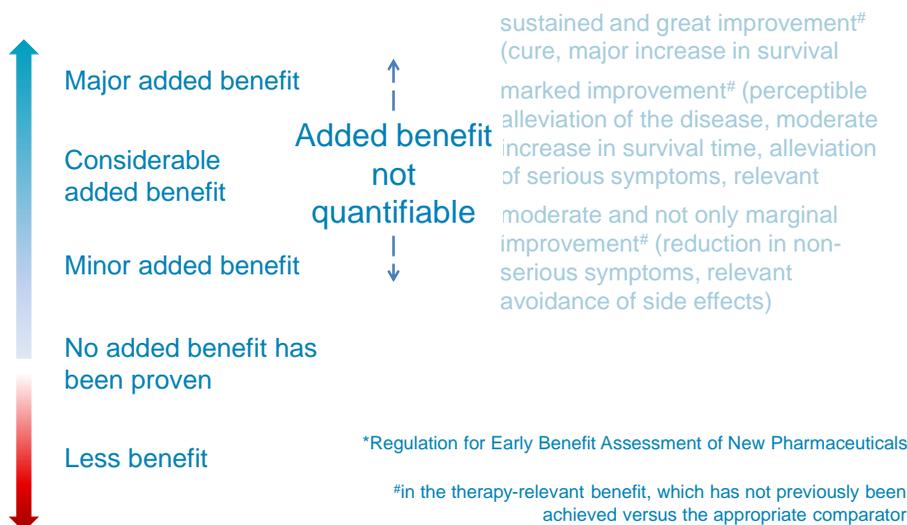
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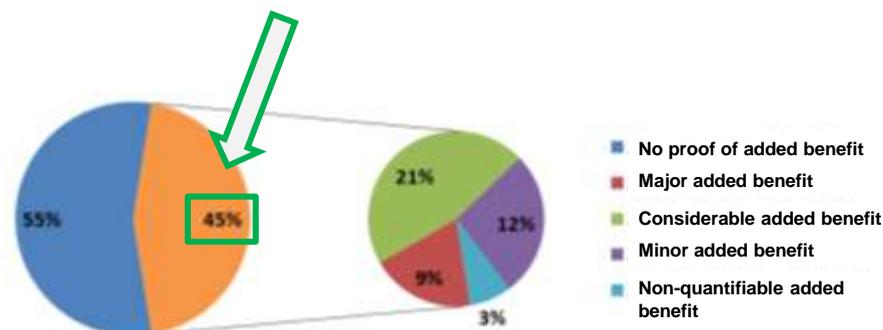
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### Criteria in accordance with AM-NutzenV\*



## Results of IQWiG's early benefit assessments

- Added benefit determined in 45% of assessments



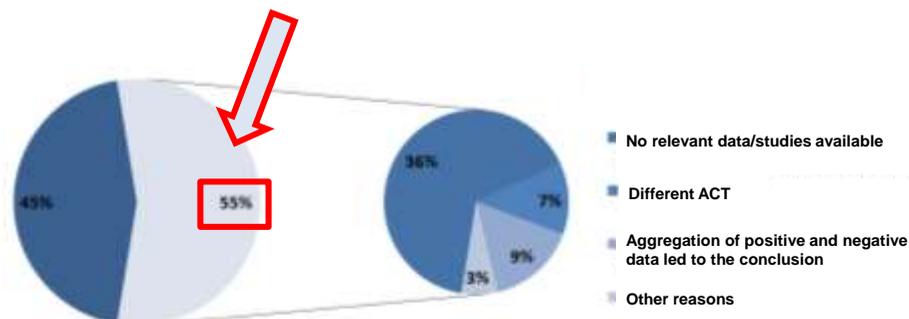
Status: 9 Jan 2014 (without orphan drugs): maximum added benefit due to consideration of addenda (n = 58)

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33

## Results of IQWiG's early benefit assessments

- No added benefit determined in 55% of assessments



Status: 9 Jan 2014 (without orphan drugs): maximum added benefit due to consideration of addenda (n = 58)

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34

**Projects & results** » Projects » [A12-20] Apraxan - Benefit assessment accord...

**[A12-20] Apraxan - Benefit assessment according to § 35a Social Code Book V (dossier assessment)**

Overview | Report documents | At a glance

**Commission:** Commission awarded on 2012-12-18 by the Federal Joint Committee (G-BA)

**Status:** Project completed

**Department:** Drug Assessment

**Current document:** Extract of dossier assessment [PDF, 384 kB]  
+ Further documents

**Note:** After completion of the assessment by IQWiG the Federal Joint Committee (G-BA) conducts a commenting procedure. This may provide supplementary information and as a result lead to a modified benefit assessment. Further information and the decision on the early benefit assessment can be found on the relevant page of the G-BA website.

**Contact address:** + to the contact form

Search

Tools  
print project

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**Gemeinsamer Bundesausschuss**

Informationen | Institution | Informationsarchiv

Informationsarchiv | Frühe Nutzenbewertung (§ 35a SGB V)

Suche

Beratungsthemen | Beschlüsse | Richtlinien | Abschlussberichte | Frühe Nutzenbewertung (§ 35a SGB V) | Aufträge/Experten

**Informations-Archiv | Frühe Nutzenbewertung (§ 35a SGB V)**

**Wirkstoff: Ticagrelor**

Stoffbrief

Frühen

- Wirkstoff: Ticagrelor
- Handelsname: Brilique®
- Therapeutisches Gebiet: Akute Koronarsyndrom
- Pharmazeutischer Unternehmer: AstraZeneca GmbH

Beginn des Verfahrens: 01.01.2011  
Veröffentlichung der Nutzenbewertung und Beginn des schriftlichen Stellungnahmeverfahrens: 04.10.2011  
Fristende zur Abgabe einer schriftlichen Stellungnahme: 25.10.2011  
Beschlussfassung: Voraussichtlich Mitte Dezember 2011

Bemerkungen:  
staatseigende Datenverarbeitung nach Übergangstz. 01.07.2011

Dossier | Auftragsverfahren | Stellungnahmeverfahren | Beschlüsse

Eingereichte Unterlagen des pharmazeutischen Unternehmens (Übergangsnummer 2011-01-01-0-001)

- Modul 1 (247,9 kB)
- Modul 2 (419,3 kB)
- Modul 3 (822,4 kB)
- Modul 4 (42,9 kB)

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How to access the manufacturers' dossiers

[www.g-ba.de](http://www.g-ba.de)

Only German versions available

## Summary

- Early benefit assessments:
  - provide basis for price negotiations for outpatient sector (price discounts negotiated are not binding in inpatient sector)
  - close the evidence gap in the assessment of new drugs
  - support informed decision-making by physicians and patients
- So far, 58 early benefit assessments (or “dossier assessments”) have been performed: 45% show added benefit

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37

### Institute for Quality and Efficiency in Health Care (IQWiG)

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- [www.iqwig.de](http://www.iqwig.de)



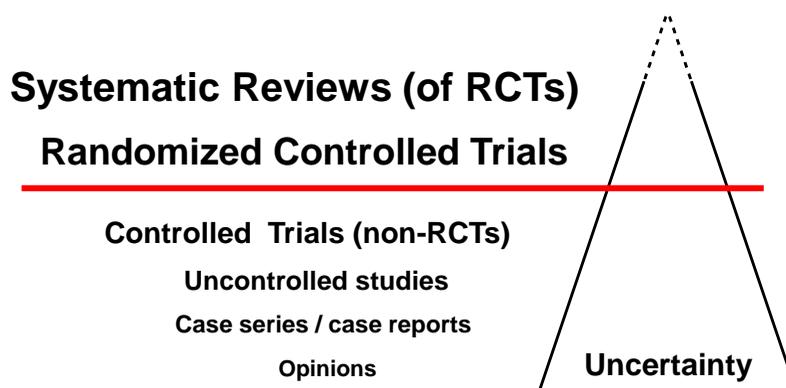
26-28 March 2014 - EAHP

38

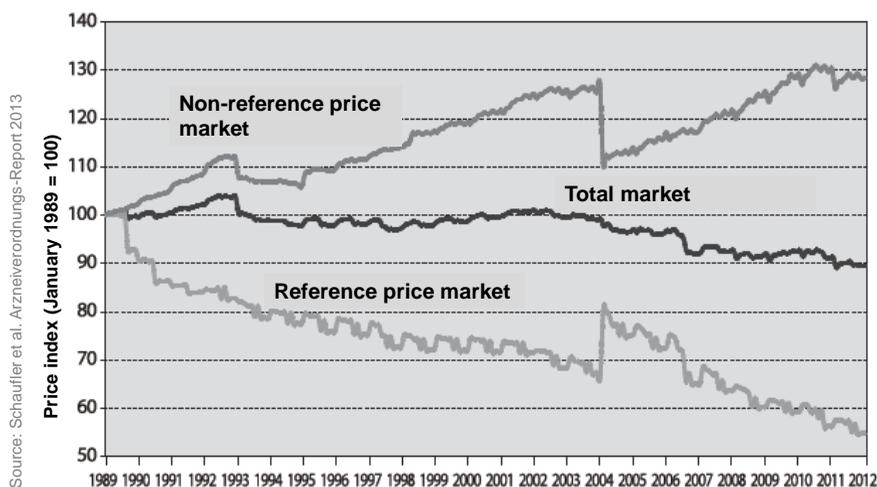
## Evidence-based medicine

- Precise formulation of questions to be addressed (Patient Intervention Comparator Outcome)
- Systematic (i.e. reproducible, transparent) procedure (search and evaluation of clinical trials)
- Reliability assessment of the result as the basis for a recommendation ('How credible are the results?')
  - Qualitative component (risk of bias)
  - Quantitative component (precision, significance level)
  - Magnitude (and nature) of the (observed) effect

## Hierarchy of evidence



## Reference prices - most effective instrument for stabilizing drug prices



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41

## Outcomes

### German Social Code Book V

- ‘... Regarding patient benefit, an
- improvement of the medical condition,
  - a shortening of the duration of the disease,
  - an increase in life expectancy,
  - a reduction in side effects, as well as
  - an improvement of the quality of life are especially to be considered. ...’



26-28 March 2014 - EAHP

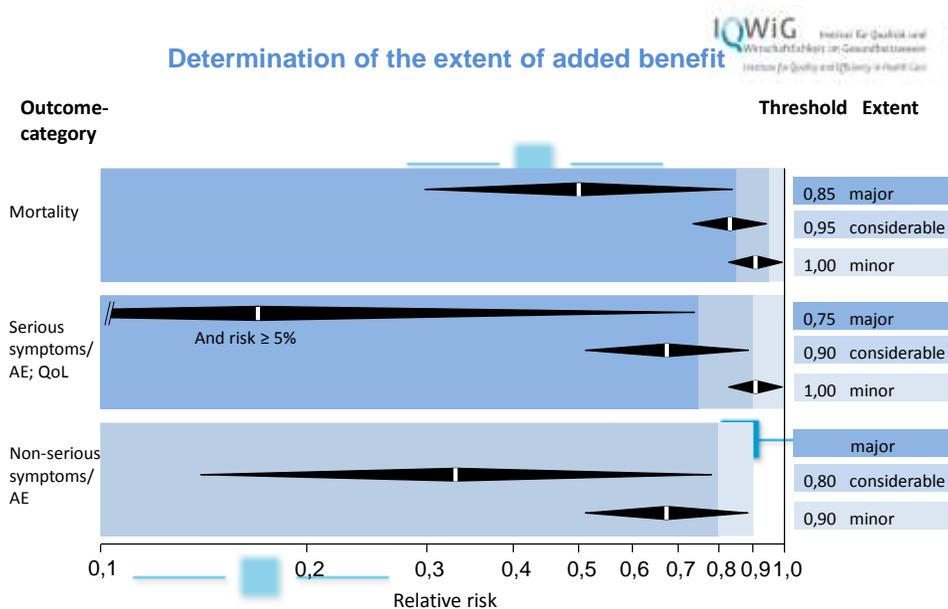
42

## Benefits catalogue of SHI

- Health care services must be sufficient, appropriate and efficient (12 SGB V)
- Approved drugs are basically reimbursable; exceptions (acc. to G-BA):
  - OTC drugs for adults (only in exceptional cases)
  - Lifestyle drugs (e.g. for improvement of erectile dysfunction, smoking cessation, weight reduction)
- Therapy advice, reimbursement restrictions and exclusions by the G-BA must be considered

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43



## Determination of the extent of added benefit

	Outcome Category				
	Survival Time (Mortality)	Serious (or Severe) Symptoms (or Late Complications) and Adverse Effects	Quality of Life	Non-Serious (or Non-Severe) Symptoms (or Late complications) and Adverse Effects	
Added Benefit	<b>Major sustained and great improvement</b> in the therapy-relevant benefit, which has not previously been achieved versus the appropriate comparator	Major increase in survival time <b>CI<sub>1</sub>: 0.85</b> (RR <sub>1</sub> = 0.50)	Long-term freedom or extensive avoidance <b>CI<sub>1</sub>: 0.75</b> (RR <sub>1</sub> = 0.17) and risk $\geq 5\%$ <sup>1</sup>	Major improvement <sup>1</sup> <b>CI<sub>1</sub>: 0.75</b> (RR <sub>1</sub> = 0.17) and risk $\geq 5\%$ <sup>2</sup>	Not applicable
	<b>Considerable marked improvement</b> in the therapy-relevant benefit, which has not previously been achieved versus the appropriate comparator	Moderate increase in survival time <b>CI<sub>1</sub>: 0.95</b> (RR <sub>1</sub> = 0.83)	Alleviation or relevant avoidance <b>CI<sub>1</sub>: 0.90</b> (RR <sub>1</sub> = 0.67)	Important improvement <sup>1</sup> <b>CI<sub>1</sub>: 0.90</b> (RR <sub>1</sub> = 0.67)	Important avoidance <b>CI<sub>1</sub>: 0.80</b> (RR <sub>1</sub> = 0.33)
	<b>Minor moderate and not only marginal improvement</b> in the therapy-relevant benefit, which has not previously been achieved versus the appropriate comparator	Any (statistically significant) increase in survival time <b>CI<sub>1</sub>: 1.00</b>	Any (statistically significant) reduction <b>CI<sub>1</sub>: 1.00</b>	Relevant improvement <sup>1</sup> <b>CI<sub>1</sub>: 1.00</b>	Relevant avoidance <b>CI<sub>1</sub>: 0.90</b> (RR <sub>1</sub> = 0.67)
<p>Additions to AM-NutzenV in <i>matrix</i></p> <p>1. The precondition is the use of a validated instrument and a validated response criterion. Values count for non-response.</p> <p>2. For at least one of the groups to be compared.</p> <p>AM-NutzenV: Regulation for Early Benefit Assessment of New Pharmaceuticals, CI<sub>1</sub>: threshold value for the upper limit of the 95% confidence interval, RR<sub>1</sub>: actual relative risk</p> <p>*: Table 32 in the German Appendix</p>					