Reference Price Groups (RPGs) Defined From 2008 to 2018 in Germany: A Detailed Overview and Discussion

PNS168

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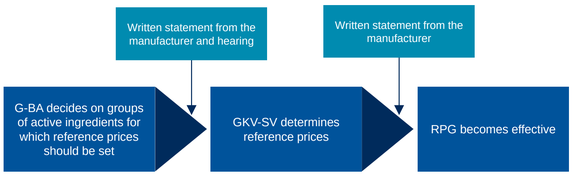
OBJECTIVES

- A major tool for price regulation in the German healthcare market is reference price groups (RPGs) that determine a maximum price reimbursed by health insurance for a certain group of drugs.
- There exist 3 levels of RPGs in Germany[1]:
  1. Drugs with the same active compound
  2. Drugs with pharmacological-therapeutically and chemically comparable active compounds (ATC level 4)
  3. Drugs with different active compounds that are therapeutically comparable
- Patent-protected drugs may be incorporated into an RPG of level 2 or 3 ("jumbo groups").
- There is no standardized process for the time from announcement of a new RPG up to the time when a new price is set.
- The aim of this study was to analyze historical durations for each procedural step and to evaluate possible influencing factors and the impact of the RPGs on costs per daily defined dose (DDD) and number of traded products.

METHODS

- New RPGs within the last 10 years (cutoff date: April 1, 2019) were analyzed (1) by duration from launch until publication of new prices and (2) by a qualitative assessment of argumentations by manufacturers from written statements and hearings to the RPG forming process by the Federal Joint Committee (G-BA) for level 2.
- The overview list of the RPGs was obtained from the website of the German Institute of Medical Documentation and Information (DIMDI) (stated as of April 1, 2019).[2] Added information on the time points was attained through the documentation of the RPG process by G-BA and the publication of the reference price (RP) resolutions by the National Association of Statutory Health Insurance Funds (GKV-SV).[3,4]

Figure 1. The Process of RP Setting in Germany

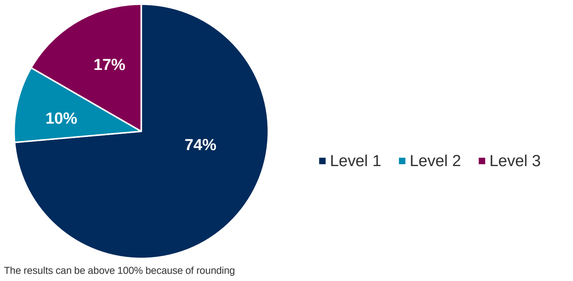


GBA – Federal Joint Committee; GKV-SV – National Association of Statutory Health Insurance Funds; RP – reference price.

RESULTS

- In total, 72 RPGs were analyzed: 53/72 for level 1, 7/72 for level 2, and 12/72 level 3 (**Figure 2**).

Figure 2. Distribution of RPG Levels



The results can be above 100% because of rounding

- It took 1.5 years on average from announcement of a new RPG until setting of the new price.
- For level 1, the mean duration until publication of an RPG was 16 months (range 8–29), level 2 was 19 months (range 14–26), and level 3 was 18 months (range 11–26).

Table 1. RPGs on Level 2 Launched Between 2008 and 2018

Drug Class	ATC Code[5]	Announcement of RPG	Implementation of RP	Duration in Months	Drug With Patent Protection Included
Benzodiazepine-related drugs	N05CF	08.12.2009	01.07.2011	19	Yes
Carbonic anhydrase inhibitors	S01EC	10.02.2015	01.01.2017	23	No
Coxibs	M01AH	08.08.2017	01.10.2018	14	No
Other antipsychotics	N05AX	08.07.2008	01.11.2009	16	No
Prostaglandin analogs	S01EE	11.11.2014	01.01.2017	26	Yes
Selective serotonin reuptake inhibitors	N06AB	08.12.2009	01.07.2011	19	Yes
Testosterone-5-alpha reductase inhibitors	G04CB	06.07.2010	01.01.2012	18	Yes

Key: ATC – Anatomical Therapeutic Chemical; RP – reference price; RPG – reference price group.

Table 2. RPGs on Level 3 Launched Between 2008 and 2018

Drug Class	ATC Code[5]	Announcement of RPG	Implementation of RP	Duration in Months	Drug With Patent Protection Included
Angiotensin II receptor blocker and calcium channel blockers	C09DB	09.05.2017	01.10.2018	17	Patent dispute during the process
Anticholinesterases	N06DA	14.01.2014	01.04.2015	15	No
Beta-blocking agents and calcium channel blockers	C07FB	07.11.2017	01.10.2018	11	Yes
Combinations of carbonic anhydrase inhibitors with timolol	S01E-	10.02.2015	01.01.2017	23	Yes
Combinations of glucocorticoids with long-acting beta-2 agonists	R03A-	09.02.2010	01.07.2011	17	No
Combinations of levodopa, decarboxylase inhibitor, and COMT inhibitor	N04BA03	12.01.2016	01.01.2017	12	No
Combinations of levothyroxine with iodide	No match	10.12.2013	01.07.2015	19	No
Combinations of prostaglandin analogs with timolol	S01E-	11.11.2014	01.01.2017	26	Yes
Drugs for urinary frequency and incontinence	G04BD	10.06.2014	01.04.2016	22	Yes
Monoamine oxidase B inhibitors	N04BD	08.03.2016	01.09.2017	19	Yes
Other vasoactive substances	B01AC C04AX	10.10.2017	01.04.2019	18	No
Progestogens and estrogens, sequential preparations	G03AB	08.12.2015	01.01.20017	13	Yes

Key: ATC – Anatomical Therapeutic Chemical; COMT – catechol-O-methyltransferase; RP – reference price; RPG – reference price group.

Results (cont.)

- In level 2 RPGs, 4 of 7 RPGs (57%) included drugs with patent protection at the time of launch.
- For these, it took 20.5 months on average from announcement by GBA until publication of the new prices (**Table 1**).
- RPGs of level 3 combine drugs with ATC codes that are sometimes very similar (ATC code level 5) or do not even share the first ATC level.
- The requirements for building a group on level 3 are very broad; however, 6 of 12 level 3 RPGs (50%) were launched with drugs under patent protection (**Table 2**).
- For level 2 RPGs, the analysis of the written and verbal statements of the entitled organizations/ companies resulted in 7 arguments that were frequently raised and matched with the legal requirements for RPG forming (**Table 3**).[6]

Table 3. Frequently Raised Objections to the RPG Forming of Level 2 RPGs

No.	Objectives	Number of Citations Related to the Objectives	Number of Citations That Led to a Change
1	Pharmacological comparability of the drugs is not applicable	3	0
2	Chemical similarity of the drugs is not applicable	2	0
3	Pharmacological and therapeutic comparability of the drugs is not applicable	2	0
4	Consideration of treatment options and medically necessary prescription not given	3	0
5	Therapeutic improvement of a drug	6	0
6	Calculation of reference value is not correct	5	1
7	Singular application of a drug	2	0

- The 1 objection that led to a change brought forward by the pharmaceutical company was the critique regarding the calculation of the reference value, which is the base for calculation of the RP.
- The G-BA acknowledged the objection and recalculated the reference value, which resulted in a repeated opportunity for the pharmaceutical companies to comment on the process.
- No clear relationship between intensity of discussion, as in amount of discussed arguments and duration of the RPG forming, could be detected (**Figure 3**).
- However, in the RPG-forming process with the longest duration, the most objections were raised (5 objections; 26 months). None of these objections provoked a change in the RPG-forming process.

Figure 3. Relationship of Duration of the RPG-Forming Process and Number of Frequently Raised Objections in the Written and Verbal Statements

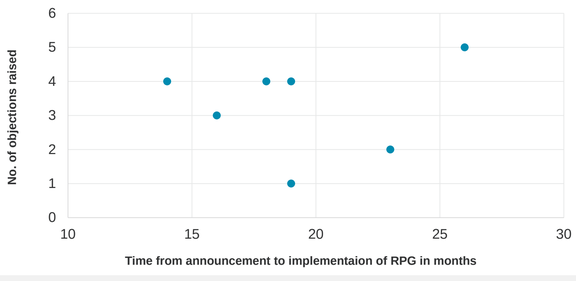


Table 4. Change in Traded Products and Net Costs per DDD From Launch to 2018

Drug Class	Year of RP Published	Change in Number of Traded Products	Change in €/DDD
Angiotensin II receptor blocker and calcium channel blockers	2018	-	-
Anticholinesterases	2015	+31%	-44%
Benzodiazepine-related drugs	2011	-21%	-11%
Beta-blocking agents and calcium channel blockers	2018	-	-
Carbonic anhydrase inhibitors	2017	-11%	-10%
Combinations of carbonic anhydrase inhibitors with timolol	2017	0%	-2%
Combinations of glucocorticoids with long-acting beta-2 agonists	2011	+160%*	-28%
Combinations of levodopa, decarboxylase inhibitor, and COMT inhibitor	2017	+20%	-9%
Combinations of levothyroxine with iodide	2015	0%	-17%
Combinations of prostaglandin analogs with timolol	2017	0%	-10%
Coxibs	2018	-	-
Drugs for urinary frequency and incontinence	2016	-8%	-37%
Monoamine oxidase B inhibitors	2017	0%	-28%
Other antipsychotics	2009	-20%	+27%
Other vasoactive substances	2019	No information available	No information available
Progestogens and estrogens, sequential preparations	2017	+6%	0%
Prostaglandin analogs	2017	-8%	-20%
Selective serotonin reuptake inhibitors	2011	-5%	-88%
Testosterone-5-alpha reductase inhibitors	2012	-30%	-6%

*A drug in the group was patent protected in the year before RPG forming and many generic products came into the market.
Source: Arzneiverordnungsreport from 2009 to 2018.

Key: COMT – catechol-O-methyltransferase; DDD – daily defined dose; RP – reference price.

CONCLUSION

- Our analysis shows that the average process from announcing an RPG to setting of the RP is 1.5 years. No factors could be identified that influence the duration of this process.
- The impact of the RPG forming becomes apparent in the decreasing cost per DDD. However, it depends on the market situation for the different groups as to whether the number of products on the market decreases or increases. In most cases, the number of products decreases.
- Building jumbo groups may discriminate against innovative pharmaceuticals in pricing. Most patients will not be willing to pay the difference between the retail price and reference price. Therefore, pharmaceutical companies need to develop strategies for market differentiation as early as possible to avoid price discrimination for a patent-protected drug.

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