PMU67: Performace-based schemes in Italy: impact of their application in the last 5 years (2013-18)

Authors: Prada M, Mariano EE, Mantovani M
Intexo, Rome, Italy; MEDVANCE Italy, Milan, Italy

Introduction

In July 2006 the Italian Medicines Agency (AIFA) signed the first managed entry agreement (MEA). MEAs are arrangements between manufacturers and payers that enable access to health technologies subject to certain conditions. They have been introduced to manage the uncertainty when patients' eligibility criteria to treatments are complex and when there is a higher uncertainty on drug's effects in real-life. These agreements can be divided into two groups: **financial agreements**, which allow payers to share with the industry the post-marketing budget impact of new drugs and **performance-based agreements**, that link payers' commitment to the actual impact of the drugs on health. In Italy both financial-based and performance-based contracts are used: the former includes hidden discounts, cost-sharing, spending caps and price/volume agreements; the latter includes performance-linked reimbursement contracts, which limit reimbursement to patients responding to the treatment (payment by result, risk-sharing or success fee). Cost- sharing, payment by result and risk-sharing rely on monitoring registries implemented by AIFA, which allow to track each single patient in the real world setting and collect data needed for the purpose of the agreement. In Italy, as well as in other healthcare systems, MEAs conditions and negotiated price discounts are confidential.

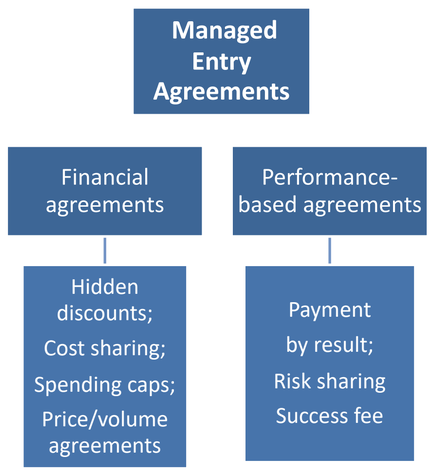

Table 1 – Managed entry agreements in Italy

Objective

The aim of this study is to analyse, through the use of the information systems of AIFA, the evolution of the managed entry agreements in Italy and the impact of the performance-based schemes, in the last 5 years, based on the last available data.

Methods

A review of the existing MEAs has been performed by checking all the available data on Registries active in September 2019 and the information coming from the annual reports released by the Osservatorio Nazionale per l'Impiego dei Medicinali (Osmed) and published between 2013 and 2018.

Results

In the considered timeframe, the number of Registries increased significantly (+99%), from 90 Registries in 2013 to 179 in 2018 (including 16 web-based Therapeutic Plans (TP)). A similar tendency can be observed by looking at the number of patients (from 149.447 in 2013 to 1,9 MIO in 2018) and treatments (from 143.012 in 2013 to 2,2 MIO in 2018).

	2013	2014	2015	2016	2017	2018
Registries available on 31.12	90	106	126	132	151	179
Web-based TPs	0	11	14	16	16	16
Treatments delivered	143.012	442.896	799.565	1.195.621	1.644.119	2.151.936
Patients enrolled	149.447	363.355	660.724	1.463.584	1.463.548	1.853.844

Figure 1 – **MEA evolution in Italy 2013-2017**

The following figure demonstrates the evolution of the MEAs (i.e. payment-by-result, cost-sharing, spending cap, success fee, and risk-sharing) application.

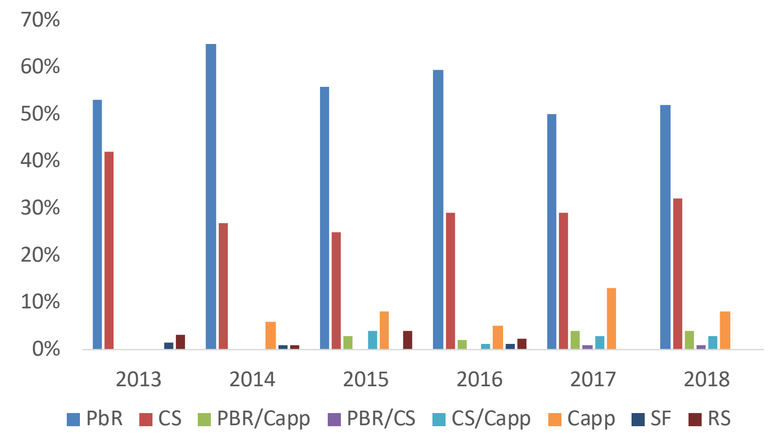

Figure 2 – MEAs agreed in 2013-2018, by type (PbR = payment-by-result, CS = cost sharing, Cap = spending cap, SF = success fee, RS = risk-sharing)

The estimated reimbursement amounts increased from 29 Mio EUR in 2013 to 693 Mio EUR in 2016, with a reduction to 532 Mio EUR in 2017 and 172 Mio EUR in 2018. Table 2 summarizes reimbursements achieved in each single Italian region.

	2013	2014	2015	2016	2017	2018
Abruzzo	1.359.316	1.286.796	4.245.898	8.283.144	8.710.641	2.439.266
Basilicata	261.126	470.724	2.371.841	6.828.733	4.037.360	968.286
Calabria	671.673	940.666	5.778.711	23.195.717	17.991.718	5.710.372
Campania	2.235.620	4.771.503	16.485.258	95.168.359	97.204.031	15.674.460
Emilia Romagna	2.343.167	3.563.911	25.710.831	47.896.897	39.491.351	14.211.106
Friuli V.G.	732.868	1.717.921	3.851.531	6.418.495	6.151.894	1.824.346
Lazio	2.897.363	4.386.250	25.536.410	44.675.993	38.555.186	15.664.596
Liguria	941.797	1.528.981	8.561.062	20.083.186	11.157.894	5.258.173
Lombardia	4.994.839	7.889.184	51.158.334	112.714.605	83.857.955	19.486.107
Marche	944.157	1.382.189	5.532.850	12.546.349	9.941.729	4.118.372
Molise	36.765	96.989	397.159	2.265.587	2.747.757	1.206.557
Piemonte	1.782.887	3.692.991	14.586.653	45.337.970	35.273.783	11.077.759
P.A. Bolzano	203.988	312.724	1.695.376	2.050.515	1.481.717	1.096.455
P.A. Trento	268.913	509.304	1.579.580	3.900.560	2.699.596	937.169
Puglia	1.847.935	3.346.735	22.194.195	73.189.274	45.383.801	13.163.388
Sardegna	546.433	1.059.861	7.455.132	23.704.852	17.004.917	11.952.033
Sicilia	1.771.608	3.710.248	13.297.614	59.691.406	30.079.294	24.488.257
Toscana	2.259.725	4.056.610	22.137.778	54.316.712	42.627.263	9.917.783
Umbria	554.429	535.684	2.012.702	7.389.311	4.660.440	3.001.917
Valle D'aosta	72.312	92.198	766.879	1.099.903	663.725	90.899
Veneto	2.630.868	4.426.884	19.561.021	42.310.468	32.415.781	10.459.210
Total	**29.357.789**	**49.778.353**	**254.916.815**	**693.068.036**	**532.137.833**	**172.746.511**

Table 2 – Reimbursements subject to the MEAs in the 21 Italian regions 2013-2018

It is highlighted in the last two Osmed reports of 2017 and 2018 (no data available between 2013 and 2016) that these reimbursements come mainly from the financial based agreements (capping and cost sharing) rather than from the performance-based schemes. Capping (84,7%) together with cost-sharing (5,6%) generated around 90% of the reimbursement in 2017 and 79,2% (55,7% Cap and 23,5% CS) in 2018.

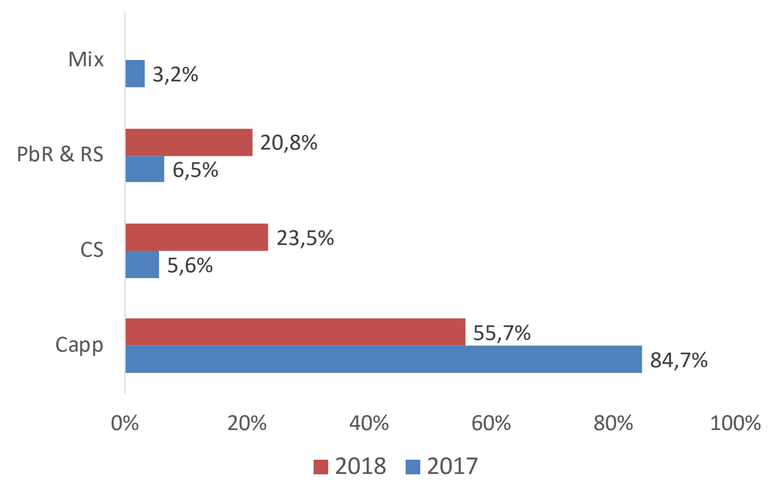

Figure 3 – Reimbursements by type of MEA (PbR = payment by result, CS = cost-sharing, Cap = spending cap, RS = risk-sharing, Mix = both financial and outcome agreement)

Despite the efficiency of spending (paying only when it works), it is interesting to note how the percentage of performance-based schemes in Italy, introduced in the last few years and still active in July 2019, has significantly decreased: 30% (4/13) in 2013, 39% (11/28) in 2014, 24% (5/21) in 2015, 19% (3/16) in 2016, 19% (4/21) in 2017 and none in 2018 and 2019.

132 registries, established in 2013, were still active in July 2019 (last available data): 26 linked to a performance based agreement, 1 to a performance based + financial agreement, 16 to a financial agreement, and 89 standalone, aimed to control the appropriate use of these drugs. Further 42 registries are still under developement and will be activated soon (1/42 linked to an outcome based agreement, 7/42 to a financial agreement and 40/42 aimed to monitor the appropriate use of these drugs).

Product	Active substance	Pathology	Date of registry activation
SATIVEX	THC e CBD	Multiple Sclerosis	01/05/2013
ZELBORAF	vemurafenib	Melanoma	19/06/2013
AFINITOR	everolimus	Breast cancer	21/07/2013
XIAPEX	collagene		23/12/2013
INLYTA	axitinib	Kidney cancer	05/01/2014
AVASTIN	bevacizumab	Ovarian cancer (first line)	07/01/2014
AVASTIN	bevacizumab	Ovarian cancer (Second line)	09/07/2014
LUCENTIS	ranibizumab	Choroidal neovascularisation (CNV)	09/07/2014
SIGNIFOR	pasireotide	Cushing syndrome	30/09/2014
BOSULIF	bosutinib	Acute myeloid leukemia	01/10/2014
KADCYLA	trastuzumab emtansine	Breast cancer	11/10/2014
TAFINLAR	dabrafenib	Melanoma	05/11/2014
GIOTRIF	afatinib	Non small cell lung cancer	24/12/2014
ICLUSIG	ponatinib	Acute myeloid leukemia	25/12/2014
ICLUSIG	ponatinib	Acute lymphoblastic leukemia	25/12/2014
ABRAXANE	paclitaxel-albumina	Pancreatic tumor	21/02/2015
XALKORI	crizotinib	NSCLC ALK+ (second line)	11/04/2015
IMNOVID	pomalidomide	Multiple myeloma	20/08/2015
SUTENT	sunitinib	Pancreatic neuroendocrine tumours	11/09/2015
ZELBORAF	vemurafenib	Melanoma	18/11/2015
STRIMVELIS	autologous CD34+ enriched cell fraction	ADA-SCID	16/08/2016
ZELBORAF/ COTELLIC	vemurafenib	Melanoma	16/10/2016
AVASTIN	bevacizumab	Cervical cancer	18/10/2016
BLINCYTO	blinatumomab	Acute lymphoblastic leukemia	24/02/2017
XALKORI	crizotinib	NSCLC ALK+ (first line)	10/03/2017
HOLOCLAR	ex vivo expanded autologous human corneal epithelial cells containing stem cells	Limbal stem cell deficiency (LSCD)	11/03/2017
VARGATEF	nintedanib	Non small cell lung cancer	12/03/2017

Figure 3 – List of registries linked to a performance-based agreement, established in 2013, and still active in July 2019

Conclusions

Starting from 2013 the number of MEAs and registries linked to them has increased continuously. On the other hand, the number of performance based schemes agreed and applied had been decreasing significantly year by year until their complete disappearance in 2017-2018. This may be related to the complexity associated with these tools, starting from the difficulty to define the patient's responsiveness to the administrative burden of their practical management. Nevethless, as demonstrated by the numbers, MEAs positive impact in terms of savings is unquestionable.

The arrival of the costly cell and gene therapies, one-shot administered, with a long life efficacy, will probably lead to a new era for these negotiating tools. Recently AIFA has officially declared a successful agreement between its pricing and reimbursement committee (CPR) and Novartis for reimbursement of the CAR-T cell therapy Kymriah, by releasing some details, such as the adoption of a split payment scheme (already applied for the first time to Strimvelis) and a payment by result reimbursement model. Payment of the drug will be done in three instalments (at the time of infusion, after six months and after 12 months); if AIFA records show that treatment is unsuccessful at any point in the 12-month period, hospitals will not have to make any subsequent payments.

It will be estremely interesting to observe the future developement of such «re-looked» performance based schemes, which role could be essential in granting access to new coming innovative technologies.

References

- https://www.aifa.gov.it/registri-farmaci-sottoposti-a-monitoraggio
- https://www.aifa.gov.it/rapporti-osmed
- https://www.aifa.gov.it/documents/20142/0/Rapporto_OsMed_2018.pdf/c9eb79f9-b791-2759-4a9e-e56e1348a976
- https://www.aifa.gov.it/documents/20142/648668/Rapporto_OsMed_2017_AIFA.pdf/5f649a2e-a8e7-3afe-184b-9131e152248b
- https://www.aifa.gov.it/web/guest/-/rapporto-osmed-2016
- https://www.aifa.gov.it/web/guest/-/l-uso-dei-farmaci-in-italia-rapporto-osmed-20-6
- https://www.aifa.gov.it/web/guest/-/l-uso-dei-farmaci-in-italia-rapporto-osmed-20-5
- https://www.aifa.gov.it/-/national-report-on-medicines-use-in-italy-year-2013-english-editio-1
- https://www.aifa.gov.it/-/aifa-approva-la-rimborsabilita-della-prima-terapia-car-t

FOR FURTHER INFORMATION: Please contact – **Mariangela Prada** – Head of Patient Access
Intexo Srl - via del Tritone, 169 – 00187 Rome Italy – *mariangela.prada@intexo.it*
MEDVANCE Italy – via G. Fara, 35 – 20135 Milan Italy – *mariangela.prada@medvance.eu*