



ISPOR LATAM

TECHNOLOGY ENABLED PATIENT ADHERENCE AS A SOURCE OF RWD

PANEL DISCUSSION

For distribution to ISPOR Latin America Participants

SEPTEMBER 16, 2017

CONFIDENTIAL

NEW YORK CITY
SAN FRANCISCO
LONDON
SHANGHAI

Agenda

INTRODUCTION	CASE STUDIES	REAL WORLD APPLICATIONS	DISCUSSION
17:30-17:40	17:40-18:00	18:00-18:15	18:15-18:30
<ul style="list-style-type: none">➢ Welcome and objectives➢ Status Quo of non-adherence data-tracking	<ul style="list-style-type: none">➢ Examples of successfully implemented adherence-based tracking studies: ECOS, SMART & STAR	<ul style="list-style-type: none">➢ Discuss how adherence-tracking can be implemented in LatAm to improve outcomes	<ul style="list-style-type: none">➢ Questions for the audience

Today, the session will be led by three speakers.

SANDEEP DUTTAGUPTA, PhD

Vice President, Emerging Markets
CBPartners

DIEGO GUARIN, MD MPH MA

Senior Director, HEOR & HTA Strategy
MERCK-SORONO

MIGUEL MARTIN de BUSTAMANTE

Senior Associate, Lead LatAm Center of Excellence
CBPartners

The objective of this session is to discuss how patient adherence tracking can be leveraged as a source of real world evidence.

SESSION OBJECTIVES

- Provide an overview of the **different mechanisms to track patient adherence**
- Review three **case studies of cloud-enabled data collection** that have been implemented in real life
- Discuss how **cloud-enabled data collection systems** can be used in LatAm to track adherence and real world outcomes

Non-adherence is a major health cost, with numerous studies indicating that non-adherence rates lead to poor outcomes, high costs and lost productivity.

**NON-ADHERENCE
IMPACT ON HEALTHCARE**

THE PROBLEM OF NON-ADHERENCE

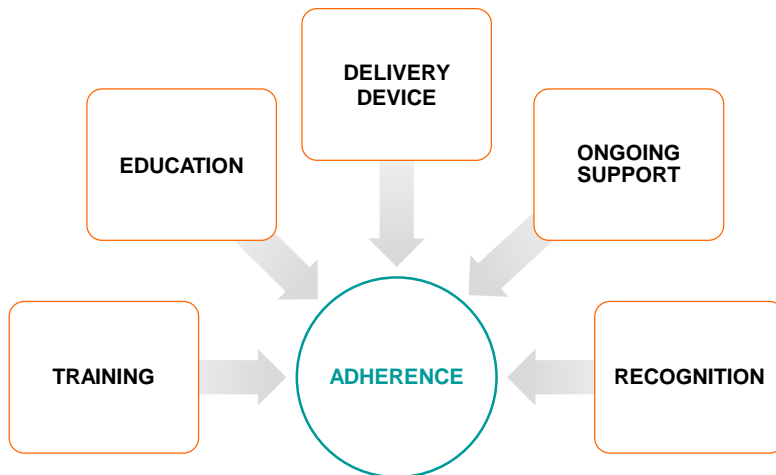
- **Non-response and poor adherence** are critical issues, which can be costly for the healthcare system
- It is expected that **13 – 72% of patients are non-adherent** to their prescription
- In EU, non-adherence is predicted to cause **194,500 deaths each year, costing up to EUR 1.25 billion**

BENEFITS OF ADDRESSING NON-ADHERENCE

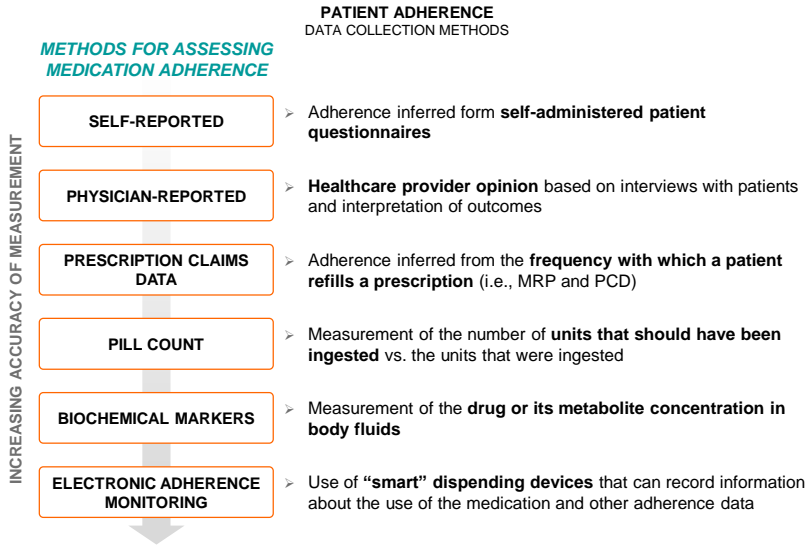
- Improvement in patient adherence would **positively impact the wider health economy** by improving health population outcomes, enhancing quality of life and reducing per capita costs

A successful patient adherence program has to be patient-centric and multi-factorial, including patient education and tracking amongst others.

**PATIENT EDUCATION PROGRAMS
KEY COMPONENTS**



Data collection methods for monitoring patient adherence have evolved from self-reported surveys to cloud-based electronic monitoring.



MRP: Medication Possession Ratio; PDC: Proportion of Days Covered

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Not all pharmaceutical innovations require a new API; electronic monitors are an innovation which can improve health outcomes and convenience.

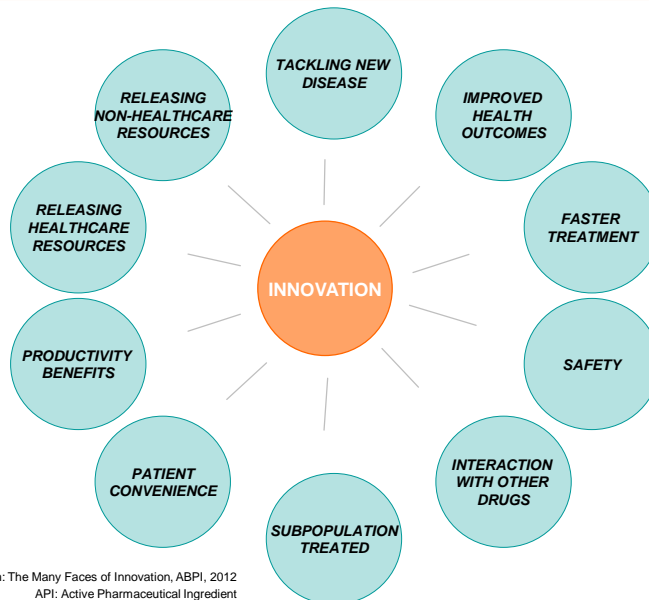


Image adapted from: The Many Faces of Innovation, ABPI, 2012
API: Active Pharmaceutical Ingredient

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Agenda

INTRODUCTION

17:30-17:40

- Welcome and objectives
- Status Quo of non-adherence data-tracking

CASE STUDIES

17:40-18:00

- Examples of successfully implemented adherence-based tracking studies: ECOS, SMART & STAR

REAL WORLD APPLICATIONS

18:00-18:15

- Discuss how adherence-tracking can be implemented in LatAm to improve outcomes

DISCUSSION

18:15-18:30

- Questions for the audience

Two real-life case studies demonstrate the ability and impact of leveraging technology to track patient adherence.

TECHNOLOGY-ENABLED PATIENT ADHERENCE CASE STUDIES

GROWTH DEFICIENCY



MULTIPLE SCLEROSIS

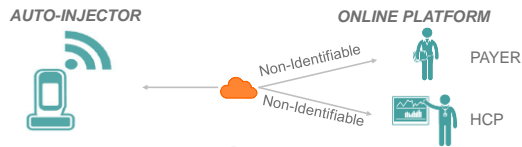




EASYPOD connect is a secure online platform for monitoring adherence of patients who are prescribed SAIZEN and are using the EASYPOD auto-injector.

**EASYPOD CONNECT
OVERVIEW**

EASYPOD CONNECT PLATFORM



KEY FUNCTIONALITIES

- **Store adherence data** from the EASYPOD auto-injector and **outcomes data** entered by the HCP
- **Calculates adherence** for the patient total dose administered and total number of injections
- Generates **data reports and graphics**
- Generates and sends **injection and data upload reminders**
- Monitors **patient's treatment over time** and with possibility to compare historical data



HCP: Healthcare Provider



ECOS is an observational study to evaluate the adherence and predictive factors in pediatric patients prescribed with SAIZEN.

**ECOS OBSERVATIONAL STUDY
METHODOLOGY**

OBJECTIVE

- **PRIMARY:** Evaluate the **level of adherence** of pediatric patients receiving SAIZEN via EASYPOD
- **SECONDARY:** Assessment of the impact of adherence on clinical outcomes, the **concentrations of insulin-like growth factors** and identification of **factors that may influence adherence** to treatment

METHODOLOGY

- **PATIENT POPULATION:** 1,972 children with **growth hormone deficiency** (65.7%), **small for gestational age** (15.0%) and **Turner Syndrome** (7.7%)
- **DESIGN:** multi-center, observational, prospective study carried out in 23 countries with a follow-up duration of up to 5 years, with interim analysis every year
- **DATA COLLECTED:**
 - From EASYPOD: adherence data
 - From HCP Notes: demographic, anthropometric and diagnostic data
- **DEFINITION OF ADHERENCE:**

$$\text{ADHERENCE (\%)} = \frac{\# \text{ DAYS WITH INJECTION RECEIVED}}{\# \text{ DAYS WITH PLANNED INJECTION}}$$

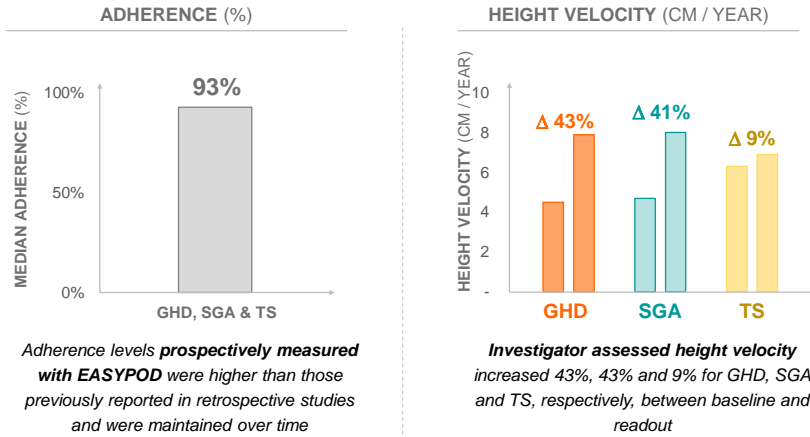


Davies et al. 2015



The ECOS study results indicated patients receiving the auto-injector have better adherence than previously reported in other retrospective studies.

ECOS OBSERVATIONAL STUDY RESULTS



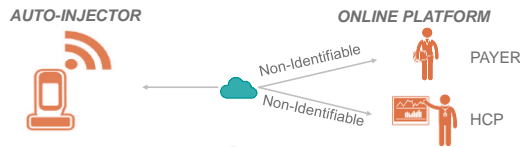
Davies et al. 2015
GHD: Growth Hormone Deficiency; SGA: Small Gestational Age; TS: Turner Syndrome



MS DIALOG is an online platform to track adherence and treatment outcomes of patients treated with REBISMART.

REBISMART & MS DIALOG OVERVIEW

MS DIALOG PLATFORM



KEY FUNCTIONALITIES

- Electronic adherence monitoring
- Physiological remote patient monitoring
- Patient reported outcomes
- Physician (unblinded) & payer (blinded) portal
- Injection reminders
- Nurse portal
- Educational content
- Study to relate adherence to outcomes



HCP: Healthcare Provider; MS: Multiple Sclerosis



SMART study assessed adherence to, and effectiveness and convenience of, treatment with REBISMART in patients with relapsing multiple sclerosis (RMS).

SMART OBSERVATIONAL STUDY METHODOLOGY

OBJECTIVE

- **PRIMARY:** Evaluate the **level of adherence** of RMS patients treated with REBISMART
- **SECONDARY:** Assess the impact of adherence on clinical outcomes and identification of **factors that may influence adherence** to treatment

METHODOLOGY

- **PATIENT POPULATION:** 912 RMS patients with **Expanded Disability Status Scale score ≤ 6** that had received REBISMART for ≤ 6 weeks
- **DESIGN:** multi-center, observational, prospective study carried out in 14 EU countries with a follow-up duration of 1 year
- **DATA COLLECTED:**
 - Primary Endpoint: **cumulative adherence** to treatment
 - Secondary Endpoint: reasons for **missed injections**, proportion of patients who **prematurely terminated** treatment and reasons for ED, proportion of **relapse-free patients**, proportion of patients **free of disease activity**, mean **number of relapses**, **serious AE** and evaluation of the device
- **DEFINITION OF ADHERENCE:**



$$\text{ADHERENCE (\%)} = \frac{\# \text{ OF INJECTIONS ADMINISTERED}}{\# \text{ OF INJECTIONS EXPECTED}} \times 100$$

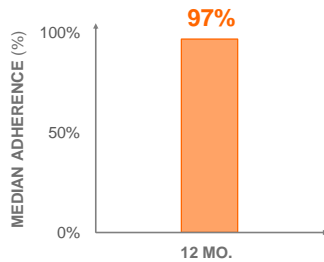
Bayas et al. 2015 14



Patients with RMS self-injecting REBISMART had excellent adherence at 12 months, which was associated with good clinical outcomes.

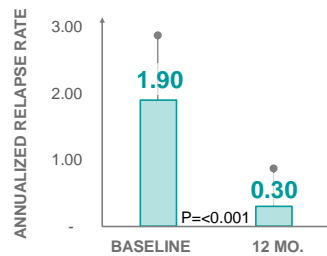
SMART OBSERVATIONAL STUDY RESULTS

CUMULATIVE ADHERENCE (%)



Adherence levels **prospectively measured with REBISMART** were very high and confirmed findings from previous 12-week user trials

ANNUALIZED RELAPSE RATE



Treatment with REBISMART was efficacious: **80% of patients were relapse-free at 12 months**, mean ARR was **significantly lower at 12 months** and **EDSS did not increase during the study period**



MO.: Months; ARR: Annualized Relapse Rate; EDSS: Expanded Disability Status Scale; RMS: Relapsing Multiple Sclerosis

Bayas et al. 2015 15



STAR assessed the local tolerability, safety, disease activity and adherence of SC REBIF in patients with RMS.

STAR OBSERVATIONAL STUDY METHODOLOGY

OBJECTIVE

- **PRIMARY:** Assess the local tolerability of SC REBISMART in patients with RMS
- **SECONDARY:** Assess the impact of adherence on clinical outcomes and identification of **factors that may influence adherence** to treatment

METHODOLOGY

- **PATIENT POPULATION:** 251 RMS patients with **Expanded Disability Status Scale score ≤ 6** that had received REBISMART for ≤ 6 weeks
- **DESIGN:** multi-center, observational, prospective study carried out in 6 EU countries with a follow-up duration of 1 year
- **DATA COLLECTED:**
 - Primary Endpoint: **Proportion of patients with ISRs**
 - Secondary Endpoint: general **safety profile, adherence, effect of adherence on disease activity**
- **DEFINITION OF ADHERENCE:**

$$\text{ADHERENCE (\%)} = \frac{\text{\# OF INJECTIONS ADMINISTERED}}{\text{\# OF INJECTIONS EXPECTED}} \times 100$$



Hupperts et al. 2014
ISR: Injection Site Reaction

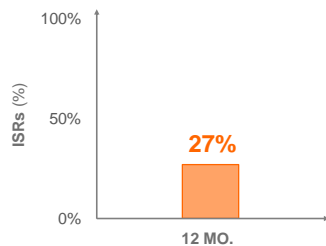
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STAR study confirmed the good local and general tolerability of REBISMART seen in CTs was also observed in the real world setting.

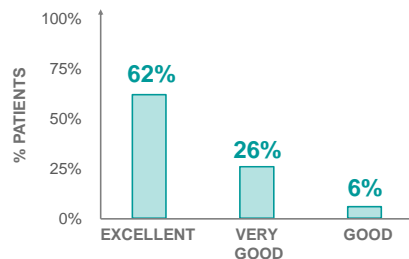
STAR OBSERVATIONAL STUDY RESULTS

ISRs (%)



27.5% of patients experienced ISRs; this is equal to, or lower than, previously reported in CTs demonstrating the long-term good tolerability

PHYSICIAN RATING OF SAFETY



Investigators rated the overall safety and tolerability of REBISMART to be **excellent, very good or good is over 87% of the patients;** AE accounted to 45% of discontinuations which compares favorably to previous studies (71.5%)



MO.: Months; ARR: Annualized Relapse Rate; EDSS: Expanded Disability Status Scale; RMS: Relapsing Multiple Sclerosis

Hupperts et al. 2014

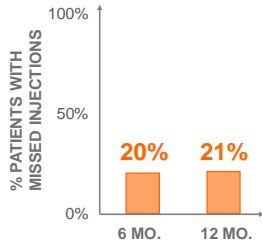
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Results from the STAR study revealed the association between good adherence and lower ARR, confirming the importance of good adherence.

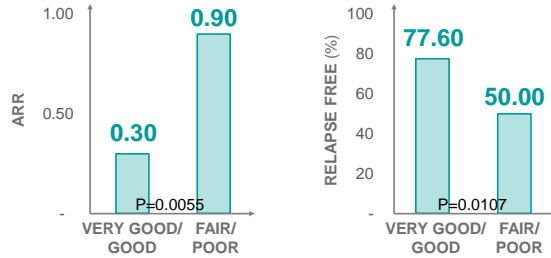
STAR OBSERVATIONAL STUDY RESULTS

ADHERENCE



Proportion of patients with missed injections since previous visit was similar at 6 and 12 months; most common reason for missed injection was "forgot to inject" (51.1%)

EFFECT OF ADHERENCE ON OUTCOMES



Patients with very good / good adherence had better treatment outcomes vs. those with fair / poor adherence: greater proportion of patients were relapse-free and ARR was significantly lower



Hupperts et al. 2014
MO.: Months; ARR: Annualized Relapse Rate



Other Real World Evidence studies using REBISMA[®]:

Patient Preference and Adherence

8 **Neurology International** 2017, volume 9:6957
Patient adherence to subcutaneous injections using the RebiSmart[®] injection: a retrospective real-world study among German patients with multiple sclerosis

Martine Kroll¹,
Gert de Vries²,
Ulrike Cavaletti³

Subcutaneous interferon β -1a administration by electronic auto-injector is associated with high adherence in patients with relapsing remitting multiple sclerosis in a real-life study

Patient Preference and Adherence

8 **Neurology International** 2017, volume 9:6957
Impact of adherence on subcutaneous beta-1a effectiveness administered by audit of patient adherence to subcutaneous injections using the RebiSmart[®] injection device

Maria Dolores Edo Selona¹,
Emilio Monte Bisogni²,
Benedetta Casanova Estruch³,
José Luis Poveda Andrés⁴

¹Department of Pharmacy
²Department of Neurology Hospital
³Subcutaneous Injections in Patients
⁴Valencia, Spain



8 **PLOS ONE** 2017, volume 12:e0171426
Long-Term Adherence to IFN β -1a Treatment when Using RebiSmart[®] in Patients with Relapsing-Remitting Sclerosis

D. Fernández^{1,2}, R. Arroyo³, E. Martínez-Villanar⁴, M. Barco⁵, J. A. García Muñoz⁶, E. Merino⁷, A. Roque⁸, RELOAD Study Group⁹

1 Hospital Universitario Regional de Málaga y Virgen de la Victoria, Universidad de Málaga; 2 Hospital Universitario Virgen de las Arzobispas, Málaga; 3 Hospital Universitario Virgen de las Arzobispas, Málaga; 4 Hospital Universitario Virgen de las Arzobispas, Málaga; 5 Hospital Universitario Virgen de las Arzobispas, Málaga; 6 Hospital Universitario Virgen de las Arzobispas, Málaga; 7 Hospital Universitario Virgen de las Arzobispas, Málaga; 8 Hospital Universitario Virgen de las Arzobispas, Málaga; 9 Hospital Universitario Virgen de las Arzobispas, Málaga

RESEARCH ARTICLE

Adherence to interferon β -1a therapy using an electronic self-injector in multiple sclerosis: a multicentre, single-observational, phase IV study

Virginia A. Devorshire¹, Anthony Fenster² and Patrick Moriarty³

Patient Preference and Adherence

8 **Neurology International** 2017, volume 9:6957
Impact of adherence on subcutaneous beta-1a effectiveness administered by audit of patient adherence to subcutaneous injections using the RebiSmart[®] injection device

Helen Willis¹,
Julie Webster²,
Anne Marie Larkin³,
Laura Parker⁴

¹Specialist Rheumatology, Chatterfield, Essex, United Kingdom; ²Pharmacy, Essex, United Kingdom; ³Specialist Rheumatology, Essex, United Kingdom; ⁴Specialist Rheumatology, Essex, United Kingdom

Expert Opinion on Drug Delivery, 12:1, 15-25, DOI: 10.1517/17425247.2015.989208

Multiple sclerosis patients treated with intramuscular IFN- β 1a autoinjector in a real-world setting: prospective evaluation of treatment persistence, adherence, quality of life and satisfaction

Raymond Hupperts, Veit Becker, Janne Friedrich, Claudio Gobbi, Antonio Vasco Salgado, Bjørn Sperling & Xiaojun You

Expert Opinion on Drug Delivery, 13:7, 931-935, DOI: 10.1517/17425247.2016.1149020

Long-term adherence of patients with relapsing-remitting multiple sclerosis to subcutaneous self-injections of interferon β -1a using an electronic device: the RIVER study

Alessandra Lugaresi, Francesca De Robertis, Marinella Clerico, Vincenzo Brescia Morra, Diego Centonze, Stefano Borghesan, Giorgia Teresa Maniscalco & on behalf of the RIVER study group

Exploratory analysis of predictors of patient adherence to subcutaneous interferon beta-1a in multiple sclerosis: TRACER study

Damiano Paolicelli, Eleonora Cocco, Valentina Di Lecce, Vita Dilenzo, Lucia Moiola, Roberta Lanzillo, Paola Perini, Simona Malucchi, Giovanna Borriello, Emilio Portaccio, Valentina Panetta, Giuseppe Fenu, Francesca Sangalli, Laura Cacciaguerra, Maria Trojano & for the TRACER Group

Original Article, BMC Neurology 2015, 15:77

8 **BMC Neurology** 2015, volume 15:77
Patient adherence to and tolerability of self-administered interferon β -1a using an electronic autoinjection device: a multicentre, open-label, phase IV study

Alessandra Lugaresi^{1,2,3}, Gio Piroo⁴, Vincenzo Brescia-Morra⁵, Salvatore Ottone⁶, Paolo Bellantone⁷, Marinella Clerico⁸, Diego Centonze⁹, Antonio Uccelli¹⁰, Maria di Ieva¹¹, Giovanna De Luca¹², Andrea Marcello¹³ and Andrea Falaschi¹⁴, for the BRIDGE study group



Case Studies illustrate the potential benefits of technology enabled patient-adherence programs.

**CASE STUDY TAKEAWAYS
OVERVIEW**

TAKEAWAYS

- **Electronic monitoring** provides an objective measure of adherence, therefore not subject to patient reporting errors
- Patient adherence programs can be used to **collect outcomes data**, thus confirming the **effect of therapy in real world setting**
- Program offers benefits to **patients, payers and physicians**:
 - Helps patients engage in the **management of their disease**
 - Provides HCPS with easily accessible information to **aid treatment management**
 - Provides payers aggregate views on **patient outcomes** and can support the negotiation of **outcomes-based agreements**

Agenda

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- Status Quo of non-adherence data-tracking

CASE STUDIES

17:40-18:00

- Examples of successfully implemented adherence-based tracking studies: ECOS, SMART & STAR

REAL WORLD APPLICATIONS

18:00-18:15

- Discuss how adherence-tracking can be implemented in LatAm to improve outcomes

DISCUSSION

18:15-18:30

- Questions for the audience

Adherence programs can provide benefits to patients, physicians and institutions; however, several hurdles have limited successful implementation.

ADHERENCE-BASED TRACKING
OVERVIEW OF HURDLES

IMPLEMENTATION HURDLES

SKEPTICISM OVER IMPACT OF NON-ADHERENCE	> Healthcare institution may question the importance of adherence , given the lack of locally validated clinical and economic consequences of non-adherence
COSTS VS. COMPETITORS	> In highly commoditized spaces , with multiple therapeutic alternatives incremental value of the device may not be recognized
FRAGMENTATION OF HEALTHCARE SYSTEMS	> Traditionally fragmented healthcare systems in LatAm, without integrated healthcare records and / or national registries
DATA TRACKING & INFRASTRUCTURE	> Healthcare institutions often lack the internal infrastructure to systematically collect outcomes data
IMPLEMENTATION BURDEN	> Potential concerns over the administrative burden associated with the implementation of the program
LEGAL / COMPLIANCE	> Need to adhere to local data-sharing legislation , which may vary by country



RWD: Real World Data

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Combining the data-tracking with payer-specific applications that provide additional value may increase willingness to implement these schemes.

ADHERENCE-BASED TRACKING
POTENTIAL APPLICATIONS

POTENTIAL APPLICATIONS FROM TECHNOLOGY ENABLED PATIENT ADHERENCE PROGRAMS

- > **ADHERENCE-TRACKING:** provides **real-life aggregate views on institutional patient adherence**, which traditionally could only be obtained through randomized or observational CTs
- > **WASTAGE-TRACKING:** **electronic monitoring devices can calculate real-life wastage**, which traditionally could only be measured through research programs
- > **INTERVENTION MONITORING:** possibility to **monitor the performance of clinics**, and measure the **impact of adherence on treatment outcomes** (i.e., what is the success rate of the intervention?)
- > **CONTRACT DESIGN:** data collected can be used to **support the design of a tailored outcomes-based agreement**

This discussion will focus on how adherence-based contracts can be leveraged to align incentives of all stakeholders and pockets of opportunity where these may be implemented in LATAM



RWD: Real World Data; CTs: Clinical Trials

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Today we will review two potential based-adherence contracts; however, additional solutions may be explored based on payers' concerns and priorities.

ADHERENCE-BASED CONTRACTS
OVERVIEW

Today we will provide *two examples of adherence-based contracts* that could be considered: *Pay-For-Performance based on Adherence & Coverage with Evidence Development*

PAY FOR PERFORMANCE BASED ON ADHERENCE

➤ Agreement that enables a rebate for costs upon **achieving / not achieving a defined clinical outcome target**

COVERAGE WITH EVIDENCE DEVELOPMENT

➤ Funding is conditional on **additional data / evidence generation** through the patient adherence program; if after the agreed-upon time cutoff the additional data shows expected outcomes, the product is funded

REBATE FOR NON-RESPONDERS

➤ Agreement that enables a rebate for costs for **patients that were non-responders**

GUARANTEED ADHERENCE FOR DIFFICULT PATIENTS

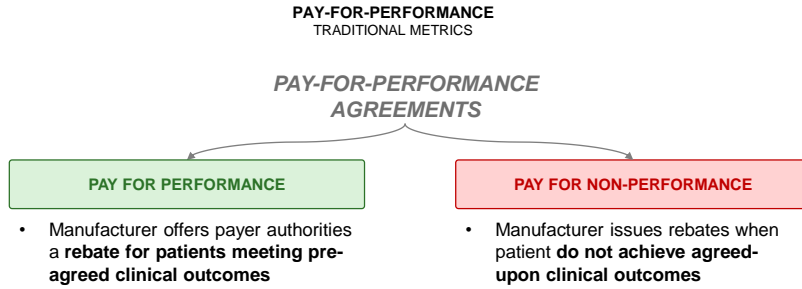
➤ Agreement that enables a rebate for costs every time a **patient misses an agreed upon number of doses**

Please select OPTION A or OPTION B.

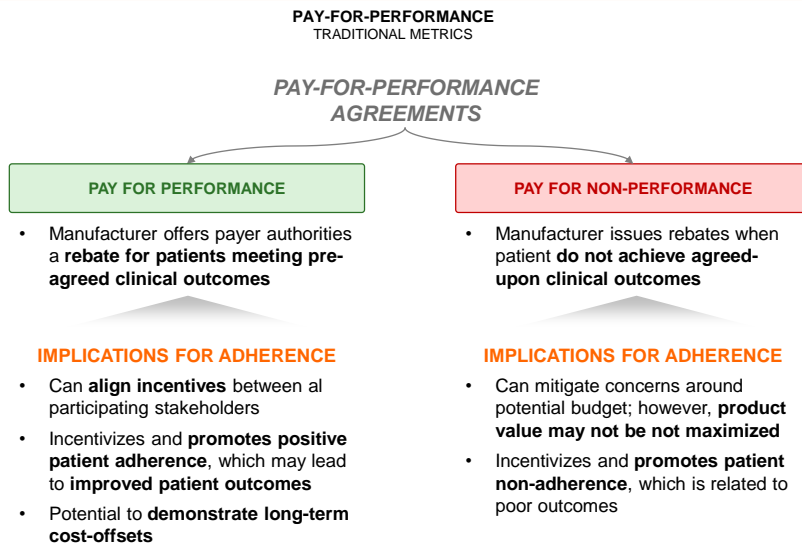
In a Pay-For-Performance agreement, when should a manufacturer issue an agreed-upon rebate?

- (A) Patient **DOES NOT** reach an agreed upon clinical outcome
- (B) Patient **DOES** reach an agreed upon clinical outcome

Traditionally, Pay-For-Performance agreements trigger a rebates when a pre-agreed outcomes is not met.

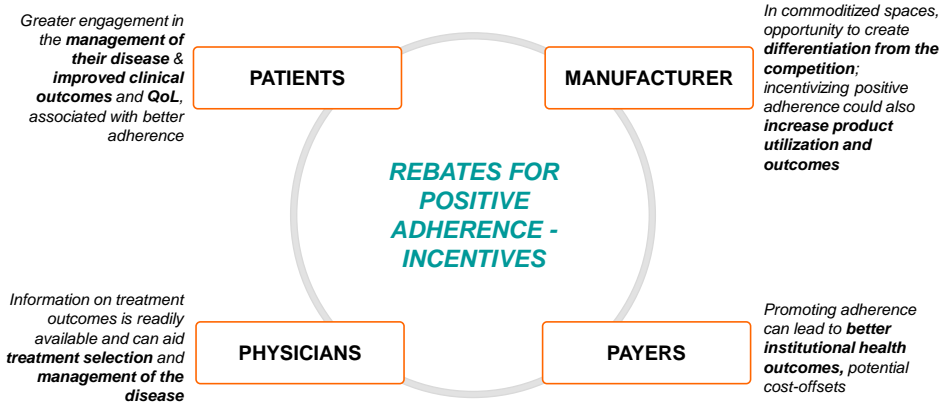


However, with adherence-based contracts incentivizing positive adherence rather than non-adherence may lead to better treatment outcomes.



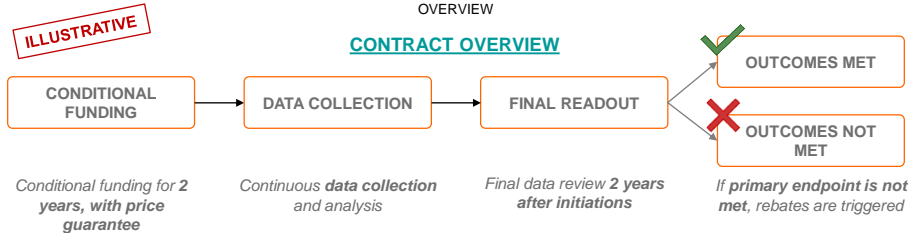
Rebates for positive adherence have the potential to align incentives between patients, physicians, manufacturers and payers.

**REBATES FOR POSITIVE ADHERENCE
STAKEHOLDER INCENTIVES**



Coverage with evidence development provides manufacturers the opportunity to generate local real world evidence while waiting for formalized funding.

**COVERAGES WITH EVIDENCE DEVELOPMENT
OVERVIEW**



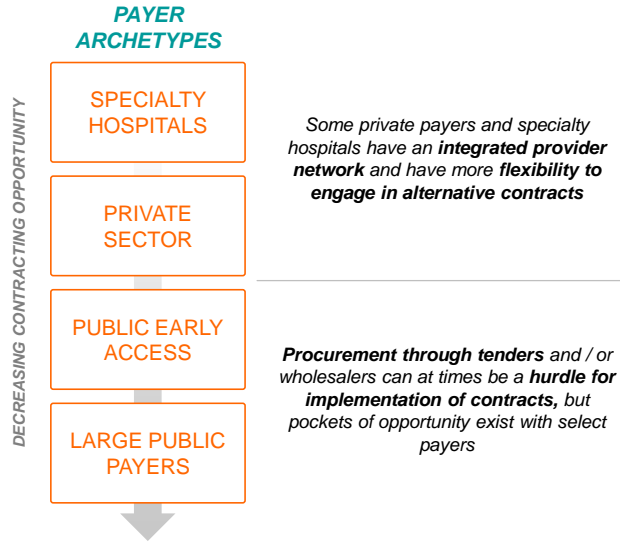
BENEFITS

- **MFG:** opportunity to collate local RWE and physician experience that may serve to differentiate the product from local competitors
- **PAYERS:** reassurance product is efficacious in the local setting
- **PHYSICIANS:** better disease management, given RWE and adherence data

POTENTIAL RISKS

- **MFG:** RWE may not generate data that enhances the value of the product, risking loss of funding and / or larger rebates

Opportunity for implementation of adherence-based contracts will vary across different payer archetypes in LatAm.







Specialty hospitals generally have a slightly higher WTP and better infrastructure vs. largest public institutions, therefore being an attractive pocket for ABC.

MARKET SEGMENTS		SPECIALTY HOSPITALS POCKETS OF OPPORTUNITY	
		OPPORTUNITIES	ISSUES & RISKS
 MEX	UMAEs	<ul style="list-style-type: none"> • Direct negotiations (i.e., may by-pass the tender) • Opportunity for funding even if not in "Cuadro Basico" 	<ul style="list-style-type: none"> • Small number of patients may limit revenue potential • General procurement through tenders
 COL	IPS	<ul style="list-style-type: none"> • Direct negotiations or through wholesalers, often in collaboration with EPS • Single institution with self network • Serve as service providers for EPS 	<ul style="list-style-type: none"> • Need to align incentives between IPS, EPS and wholesalers
 ARG	SPECIALTY HOSPITALS	<ul style="list-style-type: none"> • Opportunity for direct negotiation • Single institution with self network 	<ul style="list-style-type: none"> • Small number of patients, may limit uptake • May call for tenders in highly competitive Tas (e.g., RA., AS, MS)






LatAm markets have a flourishing private sector that could be an early adopter of electronic monitoring.

PRIVATE SECTOR POCKETS OF OPPORTUNITY		
MARKET SEGMENTS	OPPORTUNITIES	ISSUES & RISKS
 <div style="border: 1px solid orange; border-radius: 10px; padding: 5px; text-align: center; color: orange; font-weight: bold;">HMOs</div>	<ul style="list-style-type: none"> • Direct negotiations • Integrated provider network • Patient volumes (9.25% of BRA market; ~ 19.2 million) 	<ul style="list-style-type: none"> • Funding not mandated if not include in the Rol from ANS, need to gain access through individual providers
 <div style="border: 1px solid orange; border-radius: 10px; padding: 5px; text-align: center; color: orange; font-weight: bold;">UNIMED</div>	<ul style="list-style-type: none"> • Direct negotiations • Integrated provider network • Patient volumes (9.00% of BRA market; ~ 18.6 million) 	<ul style="list-style-type: none"> • Funding not mandated if not include in the Rol from ANS, need to gain access through individual providers
 <div style="border: 1px solid orange; border-radius: 10px; padding: 5px; text-align: center; color: orange; font-weight: bold;">PREPAGAS</div>	<ul style="list-style-type: none"> • Opportunity for direct negotiation • Some PREPAGAS have an integrated provider networked 	<ul style="list-style-type: none"> • Funding is not centrally regulated, and may vary between depending on inclusion in individual vademecums
 <div style="border: 1px solid orange; border-radius: 10px; padding: 5px; text-align: center; color: orange; font-weight: bold;">PRIVATE</div>	<ul style="list-style-type: none"> • Opportunity for direct negotiation • Some may have an integrated provider networked • Physicians often have a public and private practice, therefore can be advocated in the public payers 	<ul style="list-style-type: none"> • Small patient volume (5% of MEX population)







Smaller public institutions may serve as early access routes given they provide more flexibility than larger public institutions.

EARLY PUBLIC SEGMENTS POCKETS OF OPPORTUNITY		
MARKET SEGMENTS	OPPORTUNITIES	ISSUES & RISKS
 <div style="border: 1px solid orange; border-radius: 10px; padding: 5px; text-align: center; color: orange; font-weight: bold;">STATE FUNDING</div>	<ul style="list-style-type: none"> • Decisions may indirectly influence private and public providers • Funding for non-CONITEC indications • Patient volumes (28% of BRA market; ~ 75.5 million) 	<ul style="list-style-type: none"> • Tender-based procurement
 <div style="border: 1px solid orange; border-radius: 10px; padding: 5px; text-align: center; color: orange; font-weight: bold;">OPDs (e.g., SEDENA, SEMAR)</div>	<ul style="list-style-type: none"> • Integrated provider network • Opportunity exists to opt out of tender • Higher WTP vs. other public institutions • Prior experience with Pay-for-Performance 	<ul style="list-style-type: none"> • May opt for joining centralized negotiations (mesa negociadora) and tender
 <div style="border: 1px solid orange; border-radius: 10px; padding: 5px; text-align: center; color: orange; font-weight: bold;">OS-PROVINCIAL</div>	<ul style="list-style-type: none"> • Opportunity for direct negotiation • Integrated provider network 	<ul style="list-style-type: none"> • Decentralized system of OS-P, would require a strong field team to engage with all oves



Public and social security sector are the largest in volume, but traditionally cost-driven with limited examples of implementation of alternative contracts.

PRIVATE SECTOR POCKETS OF OPPORTUNITY		
MARKET SEGMENTS	OPPORTUNITIES	ISSUES & RISKS
 <div style="border: 1px solid orange; border-radius: 10px; padding: 5px; display: inline-block;">SUS</div>	<ul style="list-style-type: none"> Highest patient volume opportunity in BRA 	<ul style="list-style-type: none"> Price-driven single award tender procurement Limited experience with outcomes-based based agreements
 <div style="border: 1px solid orange; border-radius: 10px; padding: 5px; display: inline-block;">IMSS, ISSSTE, SP</div>	<ul style="list-style-type: none"> Highest patient volume opportunity in MEX 	<ul style="list-style-type: none"> Competitive single-award tender system Price erosion through reverse action tenders Prescription limited to the tender brand
 <div style="border: 1px solid orange; border-radius: 10px; padding: 5px; display: inline-block;">OS: NACIONALES</div>	<ul style="list-style-type: none"> Provides coverage to the employed (majority of the population) High cost drugs founded through SUR 	<ul style="list-style-type: none"> Funding is not centrally regulated, and may vary between depending on inclusion in individual vademecums
 <div style="border: 1px solid orange; border-radius: 10px; padding: 5px; display: inline-block;">EPS</div>	<ul style="list-style-type: none"> Opportunity for direct negotiation with IPS and wholesalers 	<ul style="list-style-type: none"> Need to align incentives between IPS, EPS and wholesalers



Agenda

INTRODUCTION	CASE STUDIES	REAL WORLD APPLICATIONS	DISCUSSION
17:30-17:40	17:40-18:00	18:00-18:15	18:15-18:30
<ul style="list-style-type: none"> Welcome and objectives Status Quo of non-adherence data-tracking 	<ul style="list-style-type: none"> Examples of successfully implemented adherence-based tracking studies: ECOS, SMART & STAR 	<ul style="list-style-type: none"> Discuss how adherence-tracking can be implemented in LatAm to improve outcomes 	<ul style="list-style-type: none"> Questions for the audience



For a copy of this presentation, please contact us:

SANDEEP DUTTAGUPTA

VICE PRESIDENT,
CBPARTNERS

sandeep.duttagupta@cbpartners.com

DIEGO F GUARIN

SENIOR DIRECTOR,
MERCK-SORONO

meghan.gallagher@sanofi.com

MIGUEL MARTIN de BUSTAMENTE

SENIOR ASSOCIATE, LEAD LATAM CENTER OF EXCELLENCE
CBPARTNERS

miguel.bustamente@cbpartners.com

