

A descriptive study on coverage of drugs of RA in drug tiers by the top payers in US Healthcare System

Dissertation Submitted to



The IIHMR University, Jaipur

for the partial fulfillment for the award of the degree of

Master of Business Administration (MBA)

in

Pharmaceutical Management

by

Astitva Gupta

Under the Supervision and Guidance of

Dr. Ashok Peepliwal

Associate Professor
School of Pharmaceutical Management

2022

A descriptive study on coverage of drugs of RA in drug tiers by the top payers in US Healthcare System

Dissertation Submitted to



The IIHMR University, Jaipur

for the partial fulfillment for the award of the degree of

Master of Business Administration (MBA)

in

Pharmaceutical Management

by

Astitva Gupta

Under the Supervision and Guidance of

Dr. Ashok Peepliwal

Associate Professor
School of Pharmaceutical Management

DECLARATION BY STUDENT

I hereby declare that this dissertation title “**A descriptive study on coverage of drugs of RA in drug tiers by the top payers in US Healthcare System**” is the bonafide record of my original research work. I declare that it has not been submitted to any other university or institution for the award of any degree or diploma. Information derived from the published or unpublished work of others has been duly acknowledged in the text.

Astitva Gupta

Date

CERTIFICATE

This is to certify that **Astitva Gupta** in partial fulfillment of the requirements for the award of the degree of MBA (Pharmaceutical Management) from the IIHMR University, Jaipur has successfully completed his internship at Clarivate Analytics during March 22, 2022 to June 19, 2022.

Place:

Maitryee Dutta Goswami

Date:

Clarivate Analytics

CERTIFICATE

This is to certify that dissertation titled “**A descriptive study on coverage of drugs of RA in drug tiers by the top payers in US Healthcare System**” is a record of the research work undertaken by **Astitva Gupta** in partial fulfillment of the requirements for the award of the degree of MBA (Pharmaceutical Management) from the IIHMR University, Jaipur under my guidance and supervision and his/her approach to the research study has been sincere, scientific, and analytical.

Dr. Ashok Peepliwal
IIHMR University, Jaipur

Date

Dr. Saurabh Banerjee
IIHMR University, Jaipur

Date

Table of Contents

Abstract.....	7
Introduction / Background.....	8
The US Healthcare System.....	8
Drug Formulary.....	9
Drug Tiers.....	10
Rheumatoid Arthritis.....	10
Anti-Rheumatoid Drugs.....	11
Literature Review.....	11
Methodology.....	12
Fingertip Formulary.....	13
Results.....	20
Discussion.....	27
Recommendations.....	27
References.....	29

Abstract

Introduction - The US Healthcare System is a complicated and non-uniform system. It is heavily impacted by a combination of the public and private payer organizations. Their plans have a particular Prescription Drug List or Formulary which includes the information of the coverage of the various drugs in that plan. In US more than 50 million people are diagnosed with Rheumatoid Arthritis. This means that the consumption of Antirheumatic drugs would also be very high.

Objectives - To identify the top payers in US Healthcare System. To Understand the coverage of drugs in the drug tier by different payers. To find out the coverage of Antirheumatic drugs in different prescription drug lists.

Methodology – The portal used for collection of data was FF portal. The data included 50 formularies from different payers. The used drugs for study included, oral, IV, SC, self-administrable, non-self-administrable drugs. It also contains biologic drugs which are high cost and mostly kept in specialty tiers in the drug list, meaning, these require higher copay or coinsurance. The list also includes steroid drugs like prednisolone and triamcinolone which are economical and wide used in the smaller stages.

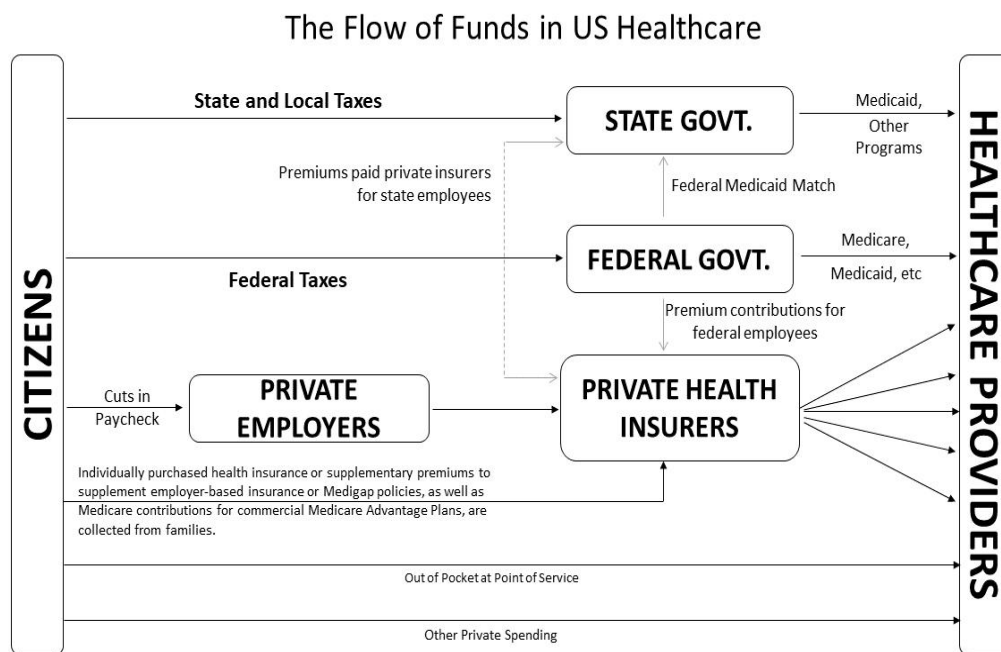
Results - Drugs like Methotrexate, Leflunomide, Hydroxychloroquine and Rituxan, are covered by most of the plans. And these are not even applied with any restrictions as well. Conversely, drugs like Orencia, Kineret, Olumiant, Cimzia, Synvisc, Cuprimine, Rituxan, Truxima, Cosentyx, Actemra, Xeljanz and Stelara are not covered and even if covered on then on higher tiers and applied with restrictions on their coverage by most of the plans. Then there are few drugs like Rayos and Zilretta which have commonly and widely used contents namely, prednisone and triamcinolone. These are not given coverage by most of the plans and in lower tiers and even if they are given coverage then too, they are applied with comparatively lesser restrictions.

Conclusion - The lifesaving and expensive drugs should be brought down to the lower tiers and the simplification of the restrictions should be done so that the agenda of whole system can be justified. Restrictions should only be used for avoiding the misuse of the drugs. If it becomes a burden on the patient in the difficult time, then getting insured does not make sense.

Introduction / Background

The US Healthcare System

The US healthcare system is a combination where publicly financed government Medicare and Medicaid health coverage hails with the co-support of privately financed insurance plans.



The flow of funds in United States healthcare includes many components. These are-

- Private Households
- Private Health Insurers
- State Govt.
- Federal Govt.
- Employers
- Providers

Broadly speaking, the whole system works on the health insurance plans. As of 2019, 91% of US citizens are insured by some or the other insurance plan. [1] As compared to other developed nations, the Healthcare System in USA is cumbersome. There is no consolidation in the healthcare system. The US health care system is best depicted as a hybrid health insurance system. The private sector accounted for more than 45% of the total expenditure in US healthcare in 2014, 28% from the home, and 20% from the private sector. Central governments make up 28% of expenditure, and state and remote governments accounts for 17%. The majority of the medical care, even the public one, is provided privately.

Generally, public health systems cover the US healthcare in addition to the healthcare market. The public health system is a Medicaid, Federal, and State-sponsored program that is generally targeted at children, age 65 and older, but is not subject to Medicaid, Medicaid, and state-owned military programs. It is intended for 4,444 children. Covered by the CHIPS program. TRICARE and others. Private infrastructure is made up of private insurance companies that offer different types of medical plans depending on the range of medicines for a particular plan. Based on per capita, the United States spends more than two times the \$ 4,087 mean of all the OECD countries. [2] All insurance companies covering health have developed their own list of preferred medicines to identify the medicines covered by the health insurance company. The payer wants to pay for the drug in question, so a list of these types of drugs is needed. Your provider should review this list of preferred medications each time you prescribe a medication. Form collection is also a tool that significantly reduces the burden on payers for medicines, as they prioritize generics over brand names when prescribing medicines and other methods.

In the United States, healthcare has rising medical costs. Here is a comparison of the costs of some countries where the US is in the 1st place-

[2]

Drug Formulary

The Prescription Drug List (Drug formulary or PDL) contains information about the drug prescribed by your doctor. These can be branded or generic. Doctors have been hired to identify the most beneficial and relevant medicines that can be prescribed to a patient. The P & T Committee is responsible for prescribing medicines. These are doctors and pharmacists who are actively practicing. Prescription Drug List usually change monthly or quarterly. It may be different.

Drug Tiers

Maximum Drug formularies come with Tiered formularies. It can be –

- 2 Tier formularies
- 3 Tier formularies
- 4 Tier formularies
- 5 tier formularies, etc.

The Tiers in the formulary are directly associated with the price of the drug. As compared to the drugs in lower tier, the drugs in upper tiers are much more expensive.

It is not necessary that the plan would charge a deductible for all the tiers. Drugs are included or excluded from the formulary/ prescription drug list every year or within a year. Becoming out of the market also lead to updation in the formularies.

In United States, Prescription Drug list is a key to get coverage of Rx drugs in health plans. It impacts all the stakeholders in the healthcare system. The purpose of formularies is to provide affordable medicines and high quality care.

Generally, generic drugs are added in the lower tiers while the branded drugs and the specialty drugs are added to upper tiers.

Rheumatoid Arthritis

An autoimmune disease that manifests inflammation of the joints, proliferation of the synovial fluid and destruction of articular cartilages is Rheumatoid arthritis (RA). The immune compound constitutes IgM which starts complement and let out chemotactic cytokines (majorly IL-1 and TNF α). For neutrophils. These inflammation causing cells discharge lysosomal enzymes that impairs cartilage and this degrades bone in this span the produced PG results in vasodilation and pain. It is a chronic progressive debilitating disorder with a course of waxing and debilitating. Drug of choice are NSAIDs which manages the

symptoms of pain, swelling, morning stiffness, and immobility, but do not stop the progression of disease.

Anti-Rheumatoid Drugs

These are drugs that can slow the progression of rheumatism (except corticosteroids), induce remission, and slow the progression of the disease, but has no non-specific anti-inflammatory or analgesic effects. They are used in rheumatoid arthritis (RA) in addition to NSAIDs and are also known as disease-modifying anti-rheumatic drugs (DMARDs) or slow-acting anti-rheumatic drugs (SAARDs). The onset of action of DMARD with conventional treatment lasts months, and recurrence occurs months after discontinuation of treatment. Recently, several biological agents (antibodies and other proteins) have been added for resistant cases.

The goals of RA drug therapy are:

- Relieves pain, swelling and joint stiffness
- Prevention of articular cartilage damage and bone erosion
- Prevents deformation and maintains joint function.

Most mild / early cases are still treated with NSAIDs alone, but the current recommendation is to add DMARD as soon as the diagnosis of RA is confirmed. However, the use of DMARD in early / mild RA should be weighed against potentially serious side effects. You can use multiple DMARDs at the same time. In advanced cases, all DMARDs may become less effective over time and may require two or three medications together.

Literature Review

According to **Alghamdi A., and others**, there are very few studies on the cost sharing and coverage of the biologic DMARDS in Medicare Part D in the US. They carried out the study between 2006-2015. The motive was to check the coverage in the formularies and the trends of cost sharing of the DMARDS, specifically the Biologics. They found out that the mean coverage of the DMARDS was 74.5% in 2006 which increased in 2007 but then decreased in 2015 to 73.8%, with the highest level being in 2007 at 85.9%. And restrictions were placed in the formularies on the utilization of these drugs. Adding to it, they were also kept in higher

specialty tiers with greater cost sharing requirements. [3]

Yazdany J. et al. carried a study on the coverage of specialty drugs in used in the treatment of Rheumatoid Arthritis. A majority of plans that covered anti-rheumatic biologics required a PA i.e., Prior Authorization. Coinsurance was required for almost every plan that covered the biologics. Whereas most of the DMARD which are not biologic are covered by almost every plan without the requirement of PA and with a copay. Hence rendering high financial load on the patient [4]

Camilo C.A. in their article described US healthcare system as a very complicated, expensive and unjust. It was more of a private companies led system which eventually became a combination of public and private system. The reason being the changes and developments in the system to serve the susceptible citizens. Even though the system has become more inclusive of the services and accessible as well, though ultimately the system lacks the power and resources to keep up without charging any cost for the services. And hence this becomes puts a variable load on the people. [5]

Methodology

Sample Design: This is a descriptive study

Data collection method: The data is collected from 50 drug formularies from random payers.

Sample size: 50 drug formularies

Analysis: Analysis was done by using Microsoft Excel.

Data collection tool: Fingertip formulary portal

Exclusion and Inclusion criteria: No private data was used in the study. All the formularies are publicly available.

Study area: US Market

FF Portal

Fingertip Formulary Portal is a big database software which stores the information of drugs. The information may be-

- Prior authorization requirement on drugs
- Quantity Limits on the drugs
- Step Therapy on the drugs
- Status of Specialty of the drugs
- Tier of drugs

If the drug is associated with lower copayment, then Tier will be lower too. For the time being, It stores the information of more than 3200 drugs used in US. For the client's convenience, the company has decided to upgrade it to a more interactive version. Fingertip formulary is generally known as the FF by the client in US market. Fingertip stores a large set of Copayment research data which is needed by clients every so often. Company has launched fingertip formulary app which can run easily on Android devices and Apple iPhone products. Fingertip keeps records in different segmented tabs which has different purpose.

Health plan has –

- A special plan name
- A special plan number
- Website URL of plan
- Formulary URL associated with plan
- Metal status of formulary
- PDL comments applicable to the Plan.
- Province or State where plan is applicable
- Provider's name etc.

This information helps in identifying the particular plan conveniently.

Every month the formulary drugs can be updated with the new information on-

- Specialty Pharmacy List (SP list)
- Prior authorization (PA list)
- Quantity list (QL list)
- Step therapy (ST list)

- Affordable Care Act list (ACA) or O\$ copay list
- Non- preferred list (NP list) etc.
- Besides these lists there are drug addition list, drug deletion list .

Formulary database keeps records of all listed data on different docs.

Clients require flash updates and current status of drugs in a PDL, so it becomes important for the organization to put the latest data in the postal as soon as possible after the release of new PDL.

To code a PDL there are few distinctive terms which is important to know-

Generic Default- It means if a generic drug is not present on formulary, the tier status assigned to the generic will be generic default. It varies from plan to plan.

Brand default - It means the tier assigned for the brand will be brand default tier if the specific drug is not present on PDL. It will vary based on the type of plans e.g., open or closed plans.

Can a single drug have Tier status with more than one restriction-

For example, suppose a weight loss drug has \$0 copayment, and some QL(5/month) is assigned in formulary, then tier will be applied as per formulary tier means Zero with QL restriction .

Similarly let say a drug Sildenafil which is used in Erectile dysfunction can have PA, and QL and ST depends on plan, So it will have multi restrictions with PDL tier.

So, clients are interested in knowing restriction changes and tier changes in drug more swiftly, so that they can take competitive lead over the competitors.

Drugs usually have following benefits-

- Pharmacy
- Medical

some others Challenges for which coding is necessary for clients are –

- Age limit on drugs
- Gender limit on drugs
- Age related PA
- different strengths with different tier and utilization management.
- Differing dosage forms in different status and with different restrictions.
- The same drug can be at varying tiers in different plans which means copayment for same drug will be differing for different plan. So, it is important for providers to understand the copayment system for same drug in differing plans.
- A payer is health insurance company which provide insurance to the person. A payer always wants from provider to prefer generic drugs over branded drugs unless not required. So, coding is necessary for cost reduction from the payer point of view. Because it gives updated information swiftly.

Fingertip Formulary Coding Procedure –

Coding of drugs present in formularies in the portal requires –

- PDL(Preferred drug list)
- Any supplementary document available aside from the PDL. These can be, a PA doc, a QL doc, update doc, etc.,
- Scrapped Excel sheet.

After logging in the Fingertip formulary portal a Health Plan page appears which looks like

Formularies

Health Plan: 31 - CareFirst BlueCross BlueShield Formulary 2 Fully Insured 3-Tier	
Default Brand Value:	3
Default Generic Value:	1
Comments:	FORMULARY: Brands not listed on formulary are Tier 3. Code Tier 0 generics as Tier 1/RC98, brands as Tier 2/RC98; use RC98C for ACA classes (bowel, contraceptive, vaccine, smoking, statin, etc). Apply PA to drugs listed with PA or MNPA. SP list: apply SP and listed restrictions; code drugs listed with only MB as NC/RC40; apply RC51 [NO PA] to drugs listed with mPA; apply RC40 to drugs listed with Rx,MB; disregard Limited distribution & SI notations. PREV: Apply RC98C to drugs on separate "Preventive" list; brands in blue for reference only Zyban is Tier 3, not excluded; Vaccines and Essure are NC/RC37, CD's are NC/SP/RC37. NP: (CareFirst PDL Formulary 2): code drugs in lower case as Tier 1, upper case as Tier 2; drugs in "NP or Excluded Drug Name" column as Tier 3/RC43, if NSA code as Tier 3/RC40/43; NTM drugs are Tier 3/PA/RC43; strips, meters, syringes, needles not listed on PDL are Tier 3/RC43. Formulary (Fully Ins) supersedes NP list for tier conflicts. Non-self administered drugs not listed are NC/RC40. Nexplanon is Tier 2/SP/RC37/98C/99D per plan CG 01-22-18.
Last Complete Update:	04-22-19 by Ayush Kumar Tiwari
File Downloads:	Formulary Data 
Formulary Comments:	View (comments present)
Drug Comments:	Download (comments present)
Complete Update? Is this a complete formulary update?: ☒ No ☐ Yes	

It stores-

- Unique Plan Number and Plan name.
- Default Generic Value
- Default Brand value

- Plan comments which are a guide to the analyst for coding the drugs.

Display Options	
Drug List:	☐ All dosage forms ☐ Authorized Generics ☐ Client ☐ Contraceptive Devices ☐ Default drug list ☐ Hemophilia ☐ Injectables ☐ Legacy N/A ☐ Medical Devices (510k) ☐ Medicare Exclusions ☐ N/A Drug list ☐ Nebulizer medications ☐ New to Market ☐ New To Market Over 6 mo ☐ Non-FDA Approved Drugs ☐ Non-self Administered ☐ Oral Antineoplastics ☐ Previous Drug Cycle ☐ Self injectables ☐ Specialty Drugs ☐ Top Drugs List ☐ Validation Drug List ☐ Drugs with notes
Full Formulary:	☒ In Alphabetical Order, starting with ☒ A ☐ B ☐ C ☐ D ☐ E ☐ F ☐ G ☐ H ☐ I ☐ J ☐ K ☐ L ☐ M ☐ N ☐ O ☐ P ☐ Q ☐ R ☐ S ☐ T ☐ U ☐ V ☐ W ☐ X ☐ Y ☐ Z ☐ By Drug Class (track progress)
Partial Formulary:	☐ By Drug Class ☐ By Drug Name ☐ By Drug Id
Drugs To Include:	☐ Brands ☐ Generics ☒ Both
Sort By:	☒ Brand Name ☐ Chemical Name ☐ Drug Id ☐ Brand Name with Generic
Edit View	

The drugs can be searched by -

- Drug ID
- Drug Class
- Brand/Generic
- Drug Name

How Fingertip Cover Drugs –

Based on the category of the plan (Open & Closed) and category of the drug (Brand or Generic), Drugs are assigned their Tier or default value.

4 Drugs found.

Save																						
Name	Chemical Name	Generic Avail	-	Tier										Restriction				Pref	SP	Reason Code		
				1	2	3	4	5	6	7	NC	N/A	PA	QL	ST	OR	P	NP				
Abiraterone	abiraterone	Yes	-	☒	☐	☐	☐	☐	☐	☐	☐	☐	☒	☐	☐	☐	☐	☐	☐	99-No co-pay required.	▼	+RC
Yonsa	abiraterone	No	-	☐	☐	☒	☐	☐	☐	☐	☐	☐	☒	☐	☐	☐	☐	☐	☒	None	▼	+RC
Zytiga 250mg	abiraterone	Yes	-	☐	☐	☒	☐	☐	☐	☐	☐	☐	☒	☐	☐	☐	☐	☐	☒	43-May be excluded or require prior authorization based on employer benefit.	▼	+RC
Zytiga 500mg	abiraterone	No	-	☐	☐	☒	☐	☐	☐	☐	☐	☐	☒	☐	☐	☐	☐	☐	☒	43-May be excluded or require prior authorization based on employer benefit.	▼	+RC
Save																						

Fingertip database storage page has Columns like –

- Name of the drug
- Chemical name of the drug
- Generic status of the drug
- Tier status of drugs
- Restriction status of drugs
- Specialty status
- RCs (Reason codes)

RCs are meant to justify such cases which are confusing or database not able to store those cases clearly.

Fingertip database consists of the information of the following types of drugs –

1. Generic drugs
2. Branded drugs
3. Authorized generic drugs

Authorized generics are also called MSBs (Multi-source brand). The drugs which are marketed by branded pharmaceutical companies under the name same as to brand of drug but are marketed at generic prices of the drug.

Necessity of Reason Code-

1. When Multiple strength of a dosage form of the same drug have multiple tiers.

Like Nebivolol HCL 5 mg is in Tier 2 and Nebivolol HCL 2.5mg is in Tier 1.

In such case we need to apply a reason code to justify multiple tiers depending on business rules.

2. When Multiple dosage forms of same drug have multiple tiers.

In case if both tablet and capsule of same drugs have different tier. In such instances, we need a RC to justify it, depending on the business rule.

3. In case if a drug has Age limit on formulary.
4. When a drug has Gender restriction on PDL.
5. When drug with similar or different Tiers have restrictions on only some of the strengths or forms.

Results

The list of drugs which were included in the study –

Brand Name	Chemical Name
Orencia ClickJect	abatacept
Kineret	anakinra
Otezla	apremilast
Ridaura	auranofin
Olumiant	baricitinib
Benlysta	belimumab
Cimzia (lyo)	certolizumab pegol
Euflexxa	hyaluronate
Hydroxychloroquine	hydroxychloroquine
Synvisc	hylan
Leflunomide	leflunomide
Methotrexate	methotrexate
Cuprimine	penicillamine
Rayos	prednisone
Rituxan	rituximab
Truxima	rituximab-abbs
Cosentyx	secukinumab
Actemra	tocilizumab
Xeljanz	tofacitinib
Zilretta	triamcinolone acetonide extended-release injectable suspension

Stelara	ustekinumab
---------	-------------

This list includes, oral, IV, SC, self-administrable, non-self administrable drugs. It also contains biologic drugs which are high cost and mostly kept in specialty tiers in the drug list, meaning, these requires higher copay or coinsurance. The list also includes steroid drugs like prednisolone and triamcinolone which are economical and wide used in the smaller stages.

Drug-wise Coverage-

1. Orencia ClickJect

Orencia ClickJect	Number of plans	Percentage
Covered in	35	70%
Covered without restrictions	3	6%
Not covered in	15	30%

Orencia ClickJect it's covered in 70% plans and in 3 plans it is covered without restrictions. it is not covered in 30% of the plans under study.

2. Kineret

Kineret	Number of plans	Percentage
Covered in	25	50%
Covered without restrictions	6	12%
Not covered in	25	50%

Kineret is covered in 50% of the plans and in these only 12% plans cover them without restrictions. While 50% plans don't cover them at all.

3. Otezla

Otezla	Number of plans	Percentage
Covered in	41	82%
Covered without restrictions	7	14%
Not covered in	9	18%

Otezla is covered in 82% of the plans and only in 7 plans it is covered without restrictions. It is not covered in 18% of the plans.

4. Ridaura

Ridaura	Number of plans	Percentage
Covered in	39	78%
Covered without restrictions	39	78%
Not covered in	11	22%

78% plans cover them without restrictions while only 22% plans do not cover them at all.

5. Olumiant

Olumiant	Number of plans	Percentage
Covered in	30	60%
Covered without restrictions	4	8%
Not covered in	20	40%

Olumiant is coverage in 60% of the plans but is covered without restrictions only in 4 plans. While it is not covered in 40% of the plans.

6. Benlysta

Benlysta	Number of plans	Percentage
Covered in	20	40%
Covered without restrictions	6	12%
Not covered in	30	60%

40% plans give coverage to this drug while only 12% give coverage without restrictions. 30% of the plans do not provide coverage to them.

7. Cimzia (Iyo)

Cimzia (Iyo)	Number of plans	Percentage
--------------	-----------------	------------

Covered in	23	46%
Covered without restrictions	1	2%
Not covered in	27	54%

Less than half of the plans cover the drug and only one plan cover them without any restrictions. 54% plans do not give any coverage.

8. Euflexxa

Euflexxa	Number of plans	Percentage
Covered in	20	40%
Covered without restrictions	10	20%
Not covered in	30	60%

This drug is covered in 40% of the plans and in 10 plans discovered without restrictions. In 30 plans not covered.

9. Hydroxychloroquine

Hydroxychloroquine	Number of plans	Percentage
Covered in	48	96%
Covered without restrictions	47	94%
Not covered in	2	4%

Hydroxychloroquine is covered by 96% of the plans and it is covered in 94% of plans without restrictions. it is not covered only in 2 plans.

10. Synvisc

Synvisc	Number of plans	Percentage
Covered in	3	6%
Covered without restrictions	3	6%
Not covered in	47	94%

It is covered only in 6% of the plans and all without restrictions. It is not given coverage in 94% of the plans.

11. Leflunomide

Leflunomide	Number of plans	Percentage
Covered in	45	90%
Covered without restrictions	44	88%
Not covered in	5	10%

Most of the plans cover leflunomide without restrictions i.e., 88%. While 10% plans have not given coverage to it.

12. Methotrexate

Methotrexate	Number of plans	Percentage
Covered in	50	100%
Covered without restrictions	48	96%
Not covered in	0	0%

All the plans have covered Methotrexate and most of them have covered it without any restriction, i.e., 96%.

13. Cuprimine

Cuprimine	Number of plans	Percentage
Covered in	10	20%
Covered without restrictions	3	6%
Not covered in	40	80%

It is covered only in 6% plans without restrictions, even though 20% plans have given coverage to it. 80% still have not given any coverage.

14. Rayos

Rayos	Number of plans	Percentage
Covered in	17	34%
Covered without restrictions	7	14%
Not covered in	33	66%

34% plans are covering Rayos while only 14% are covered without any restrictions. Majority of the plans do not cover this drug.

15. Rituxan

Rituxan	Number of plans	Percentage
Covered in	11	22%
Covered without restrictions	4	8%
Not covered in	39	78%

Majority of the plans i.e., 78% have not given coverage to Rituxan. While only 8% plans cover it without restrictions.

16. Truxima

Truxima	Number of plans	Percentage
Covered in	8	16%
Covered without restrictions	5	10%
Not covered in	42	84%

Truxima is covered in only 5% plan without restrictions. While it is totally not included in 84% plans.

17. Cosentyx

Cosentyx	Number of plans	Percentage
Covered in	37	74%
Covered without restrictions	6	12%
Not covered in	13	26%

74% plans have given coverage to Cosentyx but only 12% plans have covered it without restrictions. And it is not covered in 26% of the plans at all.

18. Actemra

Actemra	Number of plans	Percentage
Covered in	13	26%

Covered without restrictions	1	2%
Not covered in	37	74%

Actemra is covered by 26% of the plans but only 2% plans have it without restrictions. And surprisingly 74% plans have not covered it.

19. Xeljanz

Xeljanz	Number of plans	Percentage
Covered in	45	90%
Covered without restrictions	4	8%
Not covered in	5	10%

Here Xeljanz is included in the PDLs in most of the plans but only 8% plans cover it without restrictions. And 10% plans have totally excluded it.

20. Zilretta

Zilretta	Number of plans	Percentage
Covered in	8	16%
Covered without restrictions	7	14%
Not covered in	42	84%

It is not covered in majority of the plans. And only 7% plans cover it without any restriction.

21. Stelara

Stelara	Number of plans	Percentage
Covered in	46	92%
Covered without restrictions	2	4%
Not covered in	4	8%

Stelara is covered by majority of the plans. But only 4% plans cover it without restrictions.

Discussion

After looking at the results it is visible that most of the plans do not cover the anti-rheumatic drugs without restrictions. Even the one which are covering the drugs are using a utilization management technique for it, i.e., PA, ST, QL, Age Restrictions, Gender Restrictions, etc.

Drugs like Methotrexate, Leflunomide, Hydroxychloroquine and Ridaura, are covered by most of the plans. And these are not even applied with any restrictions as well. These are old drugs which have been used in the management of Rheumatoid Arthritis from years.

Conversely, drugs like Orencia, Kineret, Olumiant, Cimzia, Synvisc, Cuprimine, Rituxan, Truxima, Cosentyx, Actemra, Xeljanz and Stelara are not covered and even if covered on then on higher tiers and applied with restrictions on their coverage by most of the plans. These drugs include immune suppressants, TNF inhibitors, antineoplastics, antipsoriatics, hyaluronic acid derivative, etc.

Then there are few drugs like Rayos and Zilretta which have commonly and widely used contents namely, prednisone and triamcinolone. These are not given coverage by most of the plans and also in lower tiers and even if they are given coverage then too, they are applied with comparatively lesser restrictions.

Recommendations

Being in a complicated arrangement, the US healthcare system is tougher to understand and interpret. But whatever are the findings of this study, it suggests that the coverage of the Anti-Rheumatoid treatment is still far lagging behind in giving a relief to the patients. The payers have capitalized on giving the coverage to the non-expensive drugs fairly and for the expensive drugs they have kept higher copay or coinsurance and then to adding the difficulty of applied restrictions on the lifesaving drugs. The monoclonal antibodies like Actemra, Cosentyx, Stelara, Cimzia have time to time proven their capacity to save lives. Even in COVID 19, Actemra was very widely used on the patients and it really acted like a lifesaving drug. These are not just used for a single indication but can be used in main other clinical

conditions as well. But as per the findings in the study, if the patients require any such drug, then it is highly expensive for them and also complicated to get that drug. Being biologics, these are not usual drugs in the pharmacies, and the restrictions on them put the patients in even more trouble, instead of helping out.

The utilization management techniques are to prevent misuse and for the sustenance of the insuring institute or organization, but the whole system is to help the patients getting insured from the financial load of the expensive treatments. In USA there are more than 50 million people have diagnosed with a rheumatic condition. [6] This is a huge number and many adults suffer from this condition.

The lifesaving and expensive drugs should be brought down to the lower tiers and the simplification of the restrictions should be done so that the agenda of whole system can be justified. Restrictions should only be used for avoiding the misuse of the drugs. If it becomes a burden on the patient in the difficult time then getting insured does not make sense.

References

- [1] "International Society for Pharmacoeconomics and Outcomes Research, Inc," 25 June 2022. [Online]. Available: <https://resources/more-heor-resources/us-healthcare-system-overview/us-healthcare-system-overview-background-page-1>.
- [2] "OECD," [Online]. Available: <https://www.oecd-ilibrary.org/sites/154e8143-en/index.html?itemId=/content/con> [Accessed 25 June 2022].
- [3] E. S.-V. a. R. R.-M. Ahmad Alghamdi, "Analysis of formulary coverage and cost of biologic disease modifying agents in Medicare Part D," *Journal of Pharmaceutical Health Service Research*, no. 9, pp. 199-206, 2018.
- [4] D. R. C. R. L. G. T. C. Yazdany J, "Coverage for high-cost specialty drugs for rheumatoid arthritis in Medicare 1 *rheumatology (Hoboken, N.J.)*, vol. 67, no. 6, pp. 1474-80, 2015.
- [5] C. A. Camillo, "The US Healthcare System: Complex and Unequal," *Global Social Welfare*, vol. 3, no. 2, pp. 151-160, 2016.
- [6] C. Eustice, "The Prevalence and Statistics of Arthritis," Verywell Health, 4 February 2022. <https://www.verywellhealth.com/arthritis-prevalence-and-statistics-189356>. [Accessed 29 June 2022].