

# Budget Impact Analysis of Axitinib (Caxetib®) as Second-Line Therapy for the Treatment of Metastatic Renal Cell Carcinoma in a Cohort in Mexico

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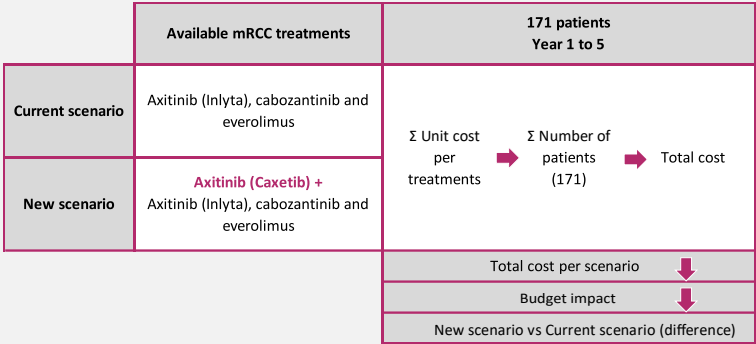
## INTRODUCTION

Renal cell carcinoma (RCC) is the most common form of kidney cancer. When RCC is diagnosed early, surgical resection of localized tumors is the primary and often curative treatment. However, due to lack of symptoms with early stage RCC, ~30% of patients are not diagnosed until their disease is advanced or metastatic. The objective of this study is to estimate the Budget Impact of the adoption of new Axitinib (Caxetib®) as a second line therapy for a cohort of 171 patients diagnosed with metastatic renal cell carcinoma (mRCC) at the Mexican Social Security Institute (IMSS) in Mexico.

## METHODS

A 5-year Budget Impact Analysis (BIA) model was developed to estimate the incremental Budget Impact (BI) for 171 patients in treatment for 2nd line mRCC at the IMSS with the adoption of new Axitinib (Caxetib®), compared to basal axitinib, everolimus and cabozantinib.

Illustration 1. Budget Impact Model.



The epidemiological data was taken from GLOBOCAN 2020. Costs were obtained from public sources. All costs are in 2024 USD.

Table 1. Available mRCC treatments, cost differences (absolute-relative).

Available mRCC treatments	Anual total cost per patient	Absolute difference	Relative difference
Axitinib (Caxetib)	\$4,432.49	Reference	
Axitinib (Inlyta)	\$6,332.13	-\$1,899.64	-43%
Everolimus	\$6,725.57	-\$2,293.08	-52%
Cabozantinib	\$14,432.70	-\$10,000.21	-226%

BIA assumptions include that new Axitinib (Caxetib®) would gradually gain market share until it reaches 50% of new or switching patients in the fifth year.

Table 2. Patient distribution per year (current and new scenario).

Current scenario	Market share year 1	Market share year 2	Market share year 3	Market share year 4	Market share year 5
Cabozantinib	5%	7%	9%	10%	15%
Everolimus	45%	40%	40%	40%	40%
Axitinib (Inlyta)	50%	53%	51%	50%	45%
Total	100%	100%	100%	100%	100%
New scenario	Market share year 1	Market share year 2	Market share year 3	Market share year 4	Market share year 5
Cabozantinib	5%	5%	5%	5%	5%
Everolimus	45%	40%	35%	30%	25%
Axitinib (Inlyta)	40%	35%	30%	25%	20%
Axitinib (Caxetib)	10%	20%	30%	40%	50%
Total	100%	100%	100%	100%	100%

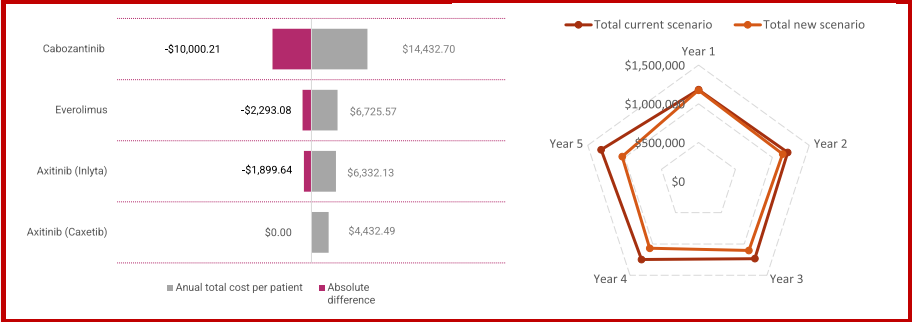
BIA based on 2 scenarios (current without new Axitinib vs new scenario considering new Axitinib).

## RESULTS

Annual per patient pharmacological costs were \$4,432.49 new Axitinib (Caxetib®), for basal Axitinib \$6,332.13 (\$1,899.64 more expensive than new Axitinib), for everolimus \$6,725.57 and cabozantinib \$14,432.70.

For every patient treated with new Axitinib (Caxetib®), IMSS saves an average of \$9,137.47.

Illustration 2. Patient cost and distribution per year (current and new scenario).



BI average predicted five-year impact reached \$1,316,369 in the current scenario vs \$1,030,147 includes new Axitinib for 171 patient cohort.

Results were robust according to the Sensitivity Analysis (SA).

Table 3. BI difference 1-5 years (current vs new scenario).

Difference between scenarios	Year 1	Year 2	Year 3	Year 4	Year 5
Total cost					
Current scenario	\$1,182,329.31	\$1,206,669.35	\$1,234,373.30	\$1,248,225.27	\$1,317,485.15
New scenario	\$1,174,661.73	\$1,139,096.57	\$1,103,531.40	\$1,067,966.23	\$1,032,401.07
Difference (total cost)	-\$7,667.58	-\$67,572.78	-\$130,841.90	-\$180,259.04	-\$285,084.08
Budget impact					
Current scenario	0.00172%	0.00176%	0.00180%	0.00182%	0.00192%
New scenario	0.00171%	0.00166%	0.00161%	0.00156%	0.00150%
(Difference BI)	-0.00001%	-0.00010%	-0.00019%	-0.00026%	-0.00042%
Sensitivity analysis (SA: 10% unit price Axitinib (Caxetib))					
Total cost					
Current scenario	\$1,182,329.31	\$1,206,669.35	\$1,234,373.30	\$1,248,225.27	\$1,317,485.15
New scenario (SA)	\$1,178,185.72	\$1,142,513.86	\$1,106,841.99	\$1,071,170.13	\$1,035,498.27
Difference (total cost)	-\$4,143.59	-\$64,155.49	-\$127,531.31	-\$177,055.14	-\$281,986.88
Axitinib (Caxetib)					
Current scenario	0.00172%	0.00176%	0.00180%	0.00182%	0.00192%
New scenario (SA)	0.00171%	0.00166%	0.00161%	0.00156%	0.00151%
(Difference BI)	-0.00001%	-0.00010%	-0.00019%	-0.00026%	-0.00041%

The difference between scenarios indicated average savings generated by new Axitinib reached - \$198,867.95. The BI for IMSS is -0.00028% in average from year 1 to 5.

## CONCLUSION

Results of 171 cohort BIA treated at IMSS, concluded:

- The adoption of new Axitinib (Caxetib®) by IMSS has a positive impact on its budget
- Axitinib (Caxetib®) leads to important savings.
- Considering the low cost when compared to other 2nd line mRCC treatments (same efficacy and safety parameters for all).
- BIA result also indicates that new Axitinib (Caxetib®) is a cost-saving intervention.
- Results increasing 10% unit price of Axitinib (Caxetib) were robust in the SA.

## REFERENCES

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