

OBJECTIVES

- Biologics have changed the treatment paradigm of many auto-immune diseases since their launch in early 2000s, and were particularly relevant for psoriasis, a chronic inflammatory skin disease with significant impact on patients' quality of life.
- With several products entering this market, it was critical to understand current clinical practice and patient response in the real world setting.
- This study aims at identifying psoriasis patients followed by IQVIA patient data, analyzing treatment share and dynamics, and estimating the average treatment duration and cost in 2016.

METHODS

ABOUT THE DATA

- IQVIA Portugal receives anonymized longitudinal patient data from 16 hospitals, i.e., records of every pharmaceutical product dispensed in these hospitals (in both in-patient and out-patient settings) since 2011.
- IQVIA's panel cover approximately 40% of all treated patients, and contains information on each patients' monthly consumption (in value and units, per molecule, brand and pack); on the ward where drugs were dispensed; and on patients' characteristics (date of birth and gender).

STUDY SCOPE

- The presented study includes all patients who consumed any of the in-scope auto-immune biologics (AIB) in 2016, in any of the 16 Portuguese hospitals from IQVIA's panel.

- Although the study is focused on 2016, psoriasis patients consumption over 60 months was analyzed to understand treatment lines and trends
- The in-scope molecules are: Adalimumab; Certolizumab; Etanercept; Infliximab; Secucinumab; and Ustekinumab.

PSORIASIS PATIENTS IDENTIFICATION

- As AIB have indications in dermatology, rheumatology and gastrointestinal-related diseases, and since IQVIA Portugal patient data does not discriminate diagnosis, psoriasis patients were identified through the medical ward in which AIB were dispensed. Patients with AIB consumption in dermatology wards were assumed to be psoriasis patients.
- These patients were the focus of this study.

PATIENTS DYNAMICS CONCEPTS

Patient analysis relies on key dynamic concepts to categorize patient behavior at a certain point in time, namely:

- (Bio)naïve patients are those who start (biologic) medication in a given month with no previous (biologic) therapy;
- Switch patients are those who stop taking a product and start another product in a given month;
- Re-fill patients are those who continue to consume the same product as in the previous month;
- Drop-out patients are those who stop consuming any product for three or more months. Drop out moment correspond to the first month without consumption;
- Reentering patients are those who have 3 months or more without consumption and then return to the same drug.

RESULTS

PATIENTS CHARACTERIZATION

- During 2016, IQVIA followed 6.953 patients who have undergone AIB treatment with the in scope molecules, of which 895 were identified as psoriasis patients (13% of total, Figure 1).
- Within IQVIA's sample, 63% of the psoriasis patients were male (Figure 2).
- Almost half of psoriasis patients were between 40 and 60 years old, with only 8% of patients being younger than 30 years (Figure 3).

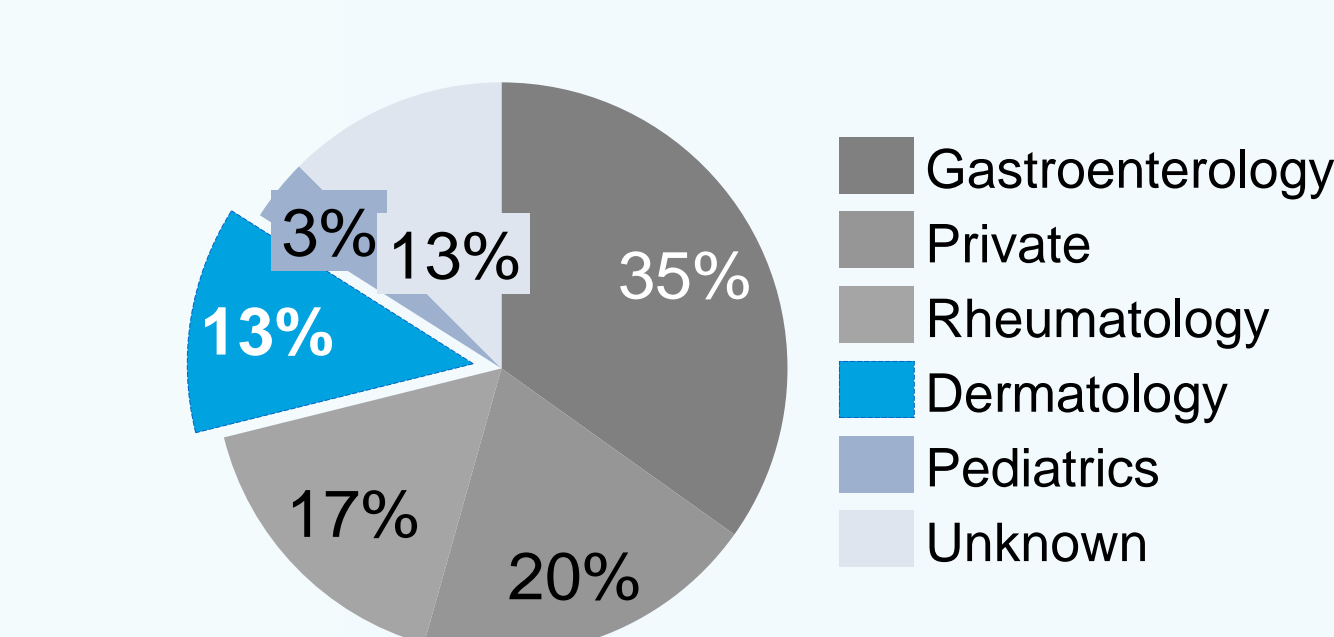


Figure 1. IQVIA's sample AIB patients per specialty (% of patients; N=6.953)

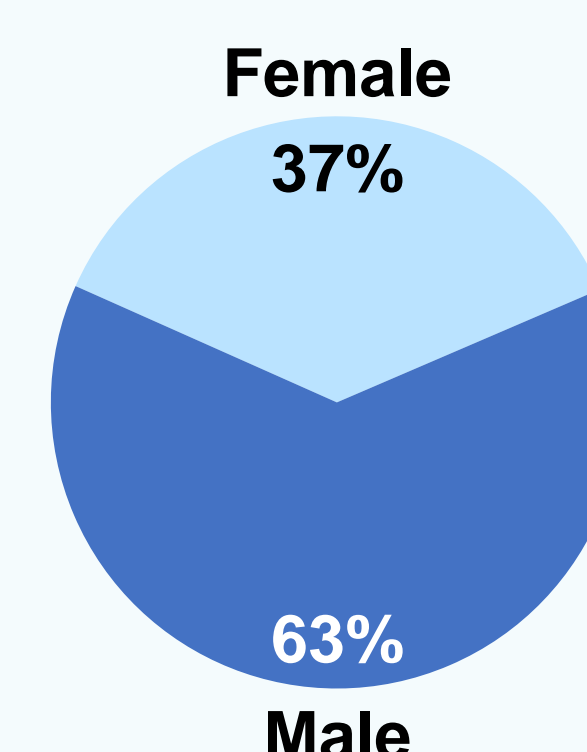


Figure 2. Psoriasis patients by gender (% of patients; N=895)

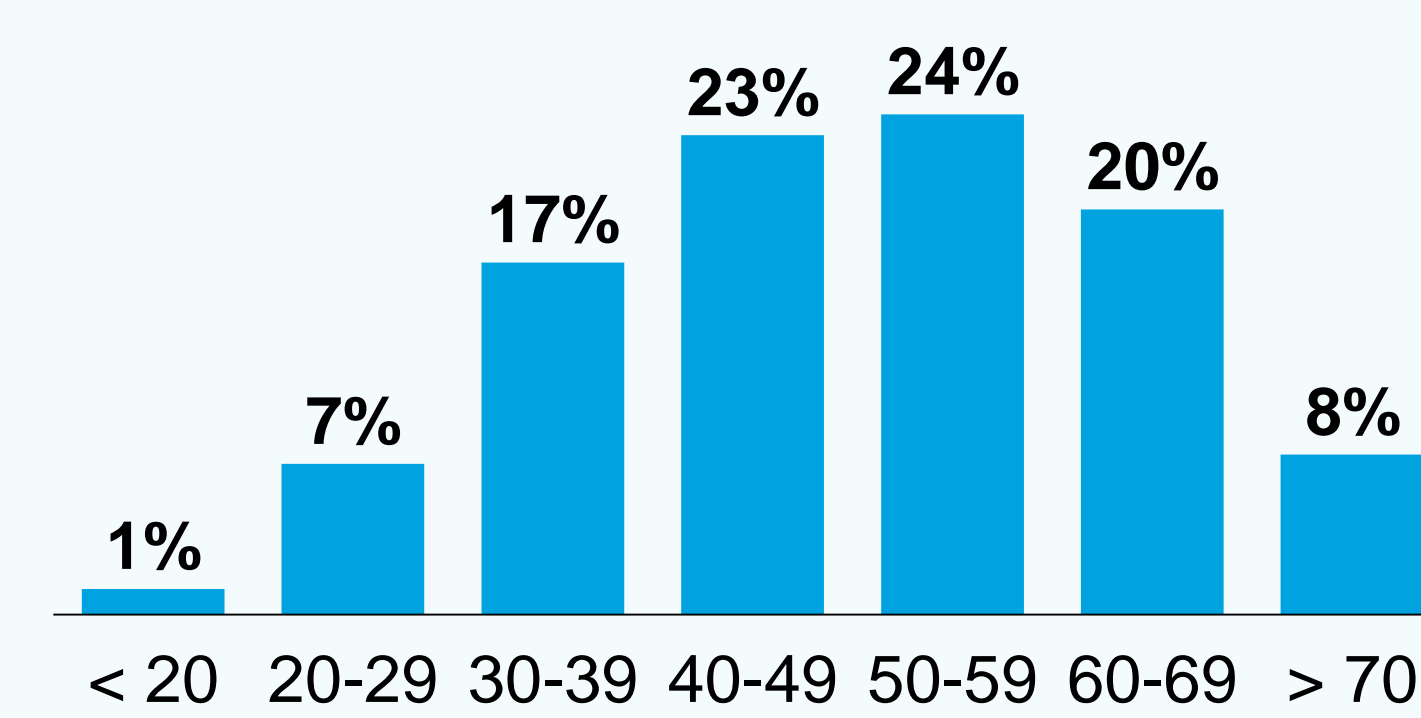


Figure 3. Psoriasis patients by age groups (% of patients; N=895)

TREATMENT SHARE

- Etanercept was the market leader in psoriasis, holding a 37% share of patients in 2016 (Figure 4), followed by Ustekinumab, and Adalimumab.
- Etanercept was the main initiation therapy for bionative patients in 2016 (Figure 5), but has been losing ground as first line choice to other treatment options (mainly new products).
- While Etanercept initiates most treatments, Ustekinumab and Adalimumab are used by most of patients proceeding to subsequent lines (Figure 6).

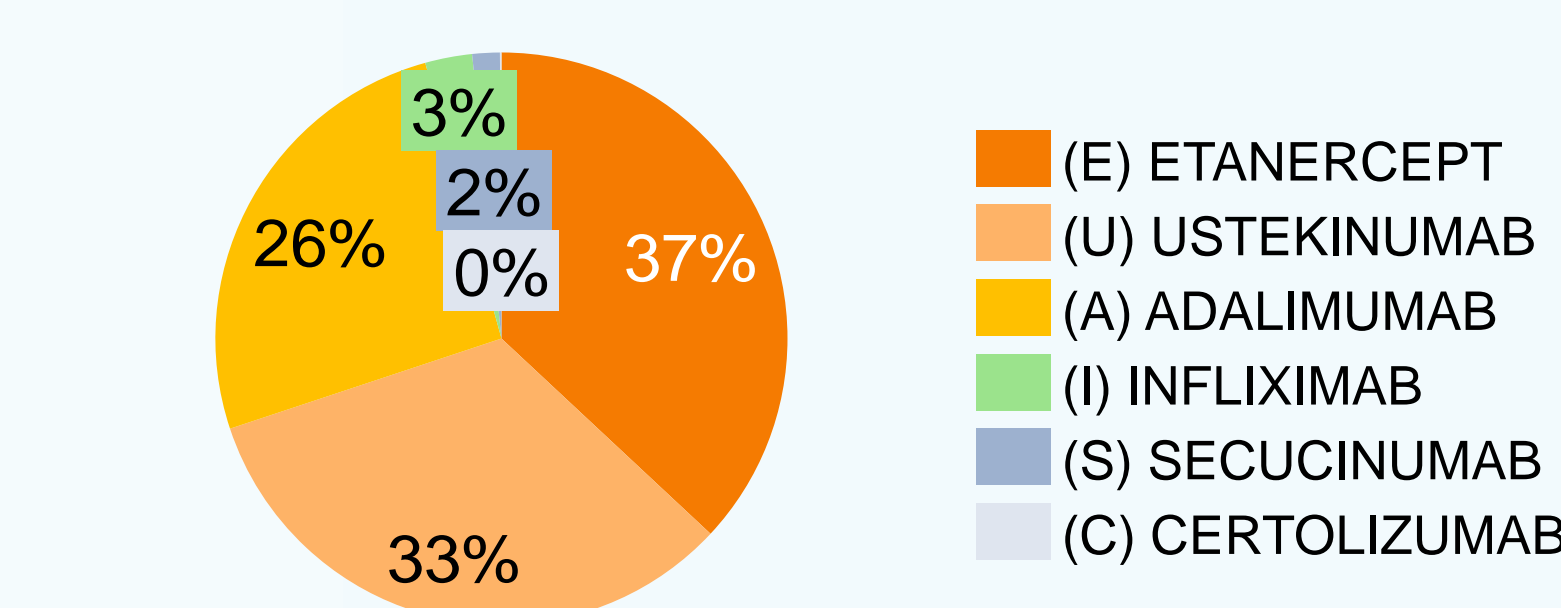


Figure 4. Psoriasis patients average monthly share by treatment (% of all patients; N=895)

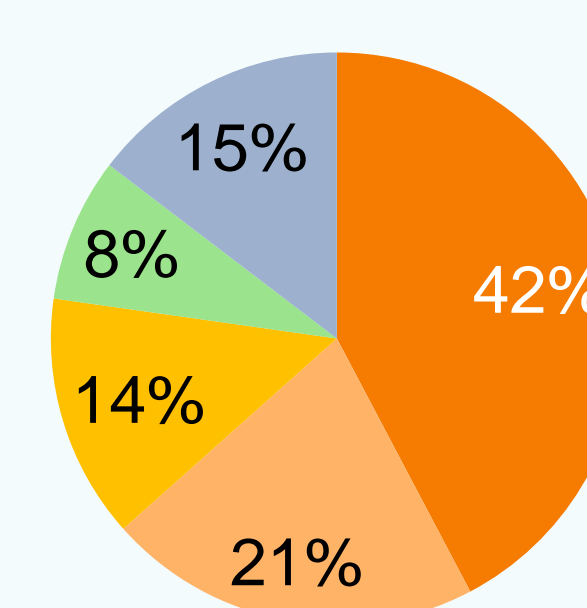


Figure 5. Bionative psoriasis patients by initial treatment (% of bionative patients; N=123)

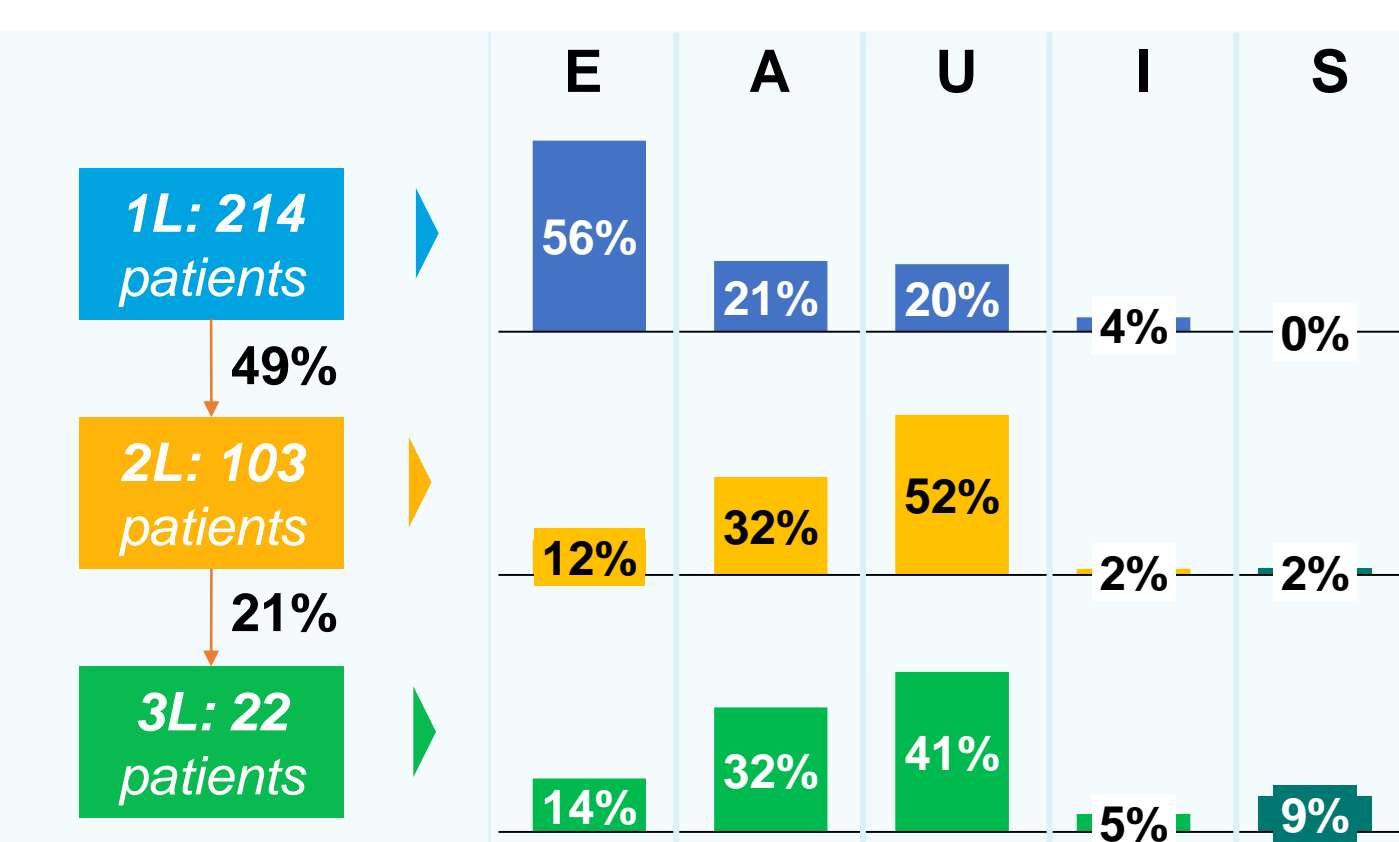


Figure 6. Psoriasis patients by line of treatment and regimen share by line (% of patients per line; dynamic patients followed between 04/2012 and 12/2016)

TREATMENT DYNAMICS

- On a yearly basis, 14% of the patients were bionative, 5% of patients have dropped-out, and 3% have reentered treatment (Figure 7).
- A total 70% of patients did not have any dynamic behavior in 2016 (refills), while only 5% switched their treatment to another biologic.
- Etanercept was the molecule who lost more switch patients, mostly due to its high usage as 1L option.
- Although Ustekinumab and Adalimumab capture most of switch patients, Secucinumab had the highest net switch value.

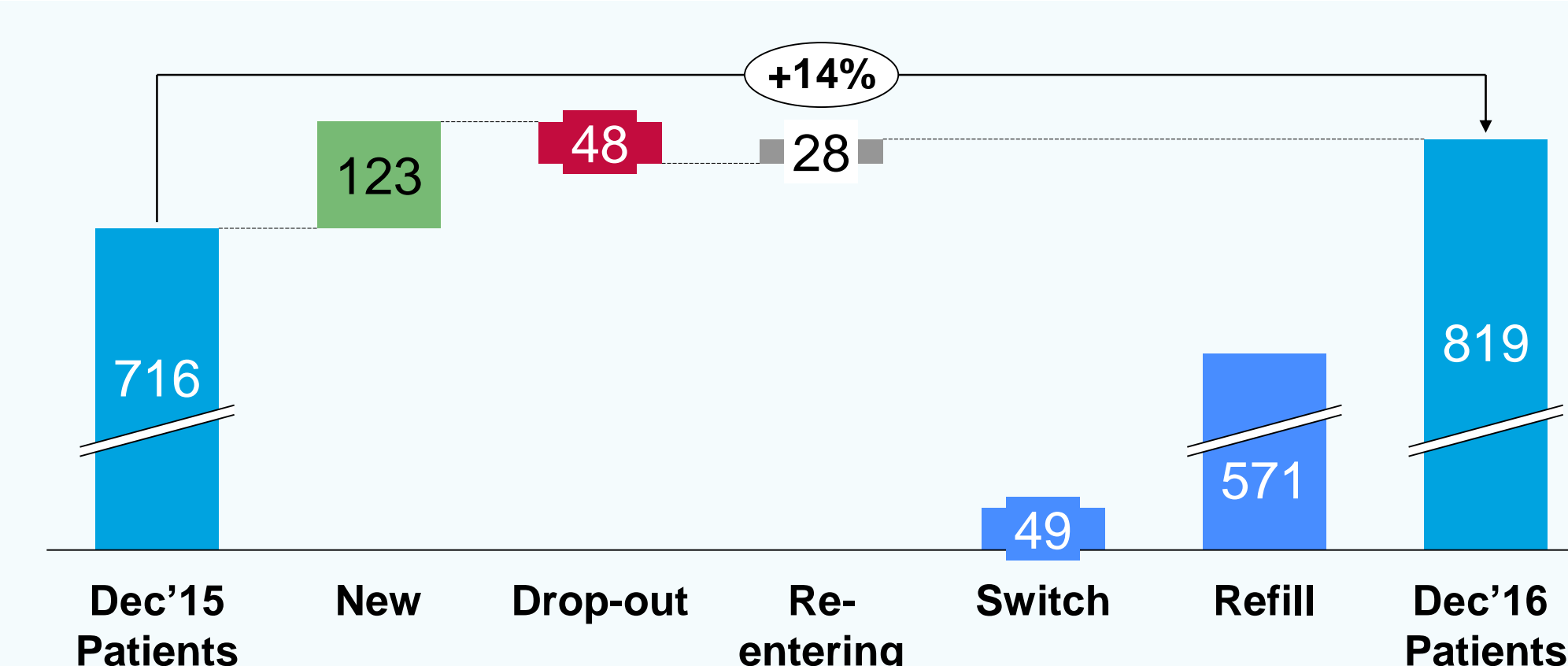


Figure 7. Psoriasis patients dynamics between December 2015 and December 2016 (n° of patients)

		Winners					
		A	E	I	S	U	Total
Losers	A	-	1	3	2	4	10
	E	6	-	1	3	13	23
	I	1	0	-	1	0	2
	S	0	0	0	-	0	0
	U	4	4	2	4	-	14
Total		11	5	6	10	17	49
Net		+1	-18	+4	+10	+3	

Figure 8. Molecules which received switch patients - "winners" - and which lost switch patients - "losers" (n° of patients)

TREATMENT DURATION AND COSTS

- Psoriasis patients seem to persist longer on 2nd treatment than on 1st, as median treatment durations were ~12 months in 1st and ~19 months in 2nd regimens (Figure 9).
- 1st line patients persist over 20 months on Adalimumab, while average treatment length is higher on Infliximab and Etanercept in the 2nd line setting (Figure 10).
- In 2016, the average annual treatment cost per patient was 11.591 ±1.012 euros. This cost is only relative to expenditure with AIB.

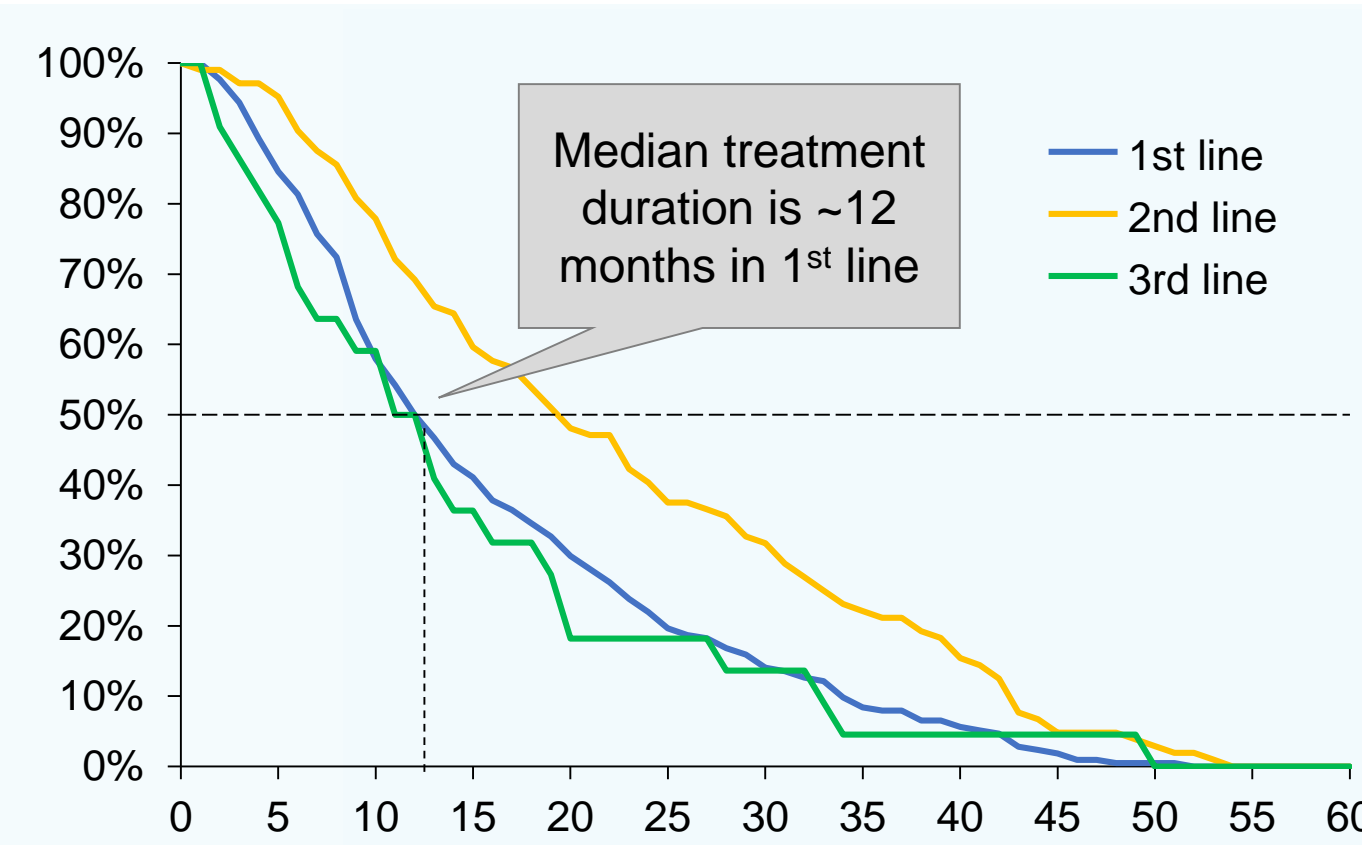


Figure 9. Distribution of psoriasis patients by treatment duration, per line (% of patients; N=214)

	1L	2L	3L
Adalimumab	20,4	23,7	19,1
Etanercept	15,1	24,4	8,3
Infliximab	14,3	26,5	6,0
Secucinumab	-	14,5	3,0
Ustekinumab	16,3	22,6	17,2
Total	16,4	22,9	14,8

Figure 10. Psoriasis average treatment length (n° of months; N=214)

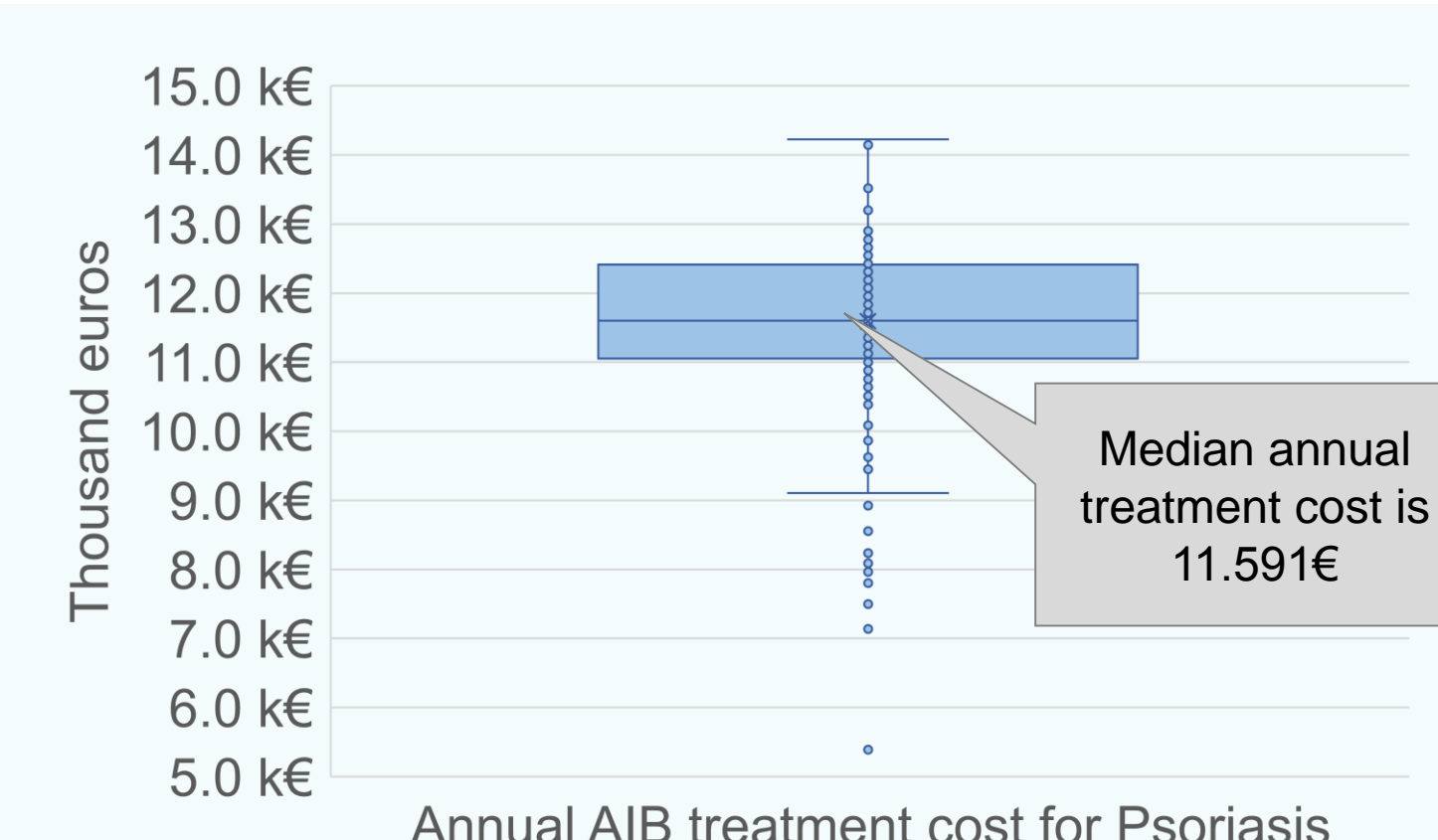


Figure 11. Psoriasis annual AIB treatment costs box plot (thousand € per patient/year)

CONCLUSIONS

- AIB re-shaped severe psoriasis management and are now widely used, with a significant impact on treatment costs. The Portuguese Healthcare system is struggling financially to provide high-quality care, being critical to fully understand the treatment dynamics, patients' response and treatment costs.
- IQVIA's patient data enabled the analysis of the entire treatment course, from naïve to drop-out, monitoring switch and wash-out periods, assessing treatment length, and treatment costs, for 895 psoriasis patients from 16 Portuguese hospitals. This real-world information is an important tool to shape clinical practice and enable a better budget management.

ACKNOWLEDGEMENTS

- The study was funded and conducted by IQVIA.
- Sousa J and Valadas F are IQVIA employees.

REFERENCES

1. IQVIA patient dat, Dec. 2016
2. IQVIA Estudo Hospitalar Nacional, Dec. 2016