

OBJECTIVES

- Phollow is a real-world evidence generator based on a cohort of users of community pharmacies. Through this cohort, it is possible to study and characterize patients undergoing treatment with certain drugs of interest.
- Accurate assessment of medication adherence is necessary for effective and efficient treatment planning, and improving it is key to achieve better health outcomes.
- The assessment of health-related quality of life (QoL) has been increasingly recognized as providing an important marker of health outcome for those with chronic or life-threatening conditions.
- The primary objectives were to measure therapeutic adherence and to access the quality of life (QoL) in a real-world setting of patients using antidiabetics in Portugal.

METHODS

- This is a retrospective, multicenter, cohort study of adult patients taking blood glucose lowering drugs (GLD), excluding insulins, identified in Portuguese community pharmacies.
- Patients were recruited to the Phollow cohort from 24th May to 7th June 2021, and medication data was retrieved through the dispense software of community pharmacies.
- The Phollow database contains data on all prescribed and dispensed medicines since the last 3 years prior the recruitment date. Additionally, sociodemographic characteristics and QoL (EQ-5D-5L) were collected through a telephone-based questionnaire applied to patients after recruitment.
- Patients were classified as incident to therapy if their first dispense was over 90 days from the start of the follow-up window. Adherence was defined as the proportion of days covered (PDC) and was calculated at 1 and 2 years for each INN. Patients were classified as adherent if PDC $\geq$ 80%.
- Statistical analysis comprised descriptive statistics displayed through tables and figures providing the description of variables and main outcomes (adherence and QoL).
- Data analysis was performed using SAS software (SAS Institute, Cary NC, USA).

CONCLUSIONS

- The mean adherence rate varied substantially among INNs and decreased after 2 years for the majority of INNs under analysis. Our findings suggest that QoL in the study population was high. Despite the limited sample size of this research, Phollow enhances the knowledge about medication use patterns and health outcomes of Portuguese population which are key to support health technologies assessment.

RESULTS

Table 1. Baseline characteristics

	Total patients n=160*
Female, n (%)	60 (37.5)
Age, years, median (IQR)	66.5 (61.0-74.0)
Age classes, years, n (%)	
<65	64 (40.0)
$\geq$ 65	96 (60.0)
Level of Education completed, n (%)	
Basic (Up to 4 year)	67 (44.4)
Secondary (Up to 12 Years)	62 (41.1)
University	22 (14.6)
Employment status, n (%)	
Employed	41 (27.0)
Non-employed	15 (9.9)
Retired	96 (63.2)
Household size, n (%)	
Living alone	35 (23.0)
2	78 (51.3)
3	27 (17.8)
4	8 (5.3)
5 +	4 (2.6)
Income, n (%)	
$\leq$ €1.000	78 (57.8)
$>$ €1.000	57 (42.3)
Time since diagnosis, n (%)	
$\leq$ 5 years	44 (30.1)
6 – 10 years	35 (24.0)
$>$ 10 years	67 (45.9)

Table 2. Adherence

INN	1 year		2 year	
	mean	% Adherent (PDC $\geq$ 80%)	mean	% Adherent (PDC $\geq$ 80%)
Metformin + Empagliflozin	99,3%	100,0%	-	-
Ertugliflozin	97,7%	100,0%	-	-
Acarbose	95,3%	100,0%	74,1%	33,3%
Linagliptin	88,1%	66,7%	64,8%	33,3%
Pioglitazone + Alogliptin	87,1%	66,7%	95,9%	100,0%
Metformin + Dapagliflozin	85,0%	80,0%	89,0%	87,5%
Metformin + Vildagliptin	84,7%	74,1%	82,0%	73,1%
Canagliflozin	84,3%	80,0%	69,8%	0,0%
Metformin + Linagliptin	82,2%	100,0%	-	-
Metformin + Sitagliptin	81,9%	70,7%	78,1%	68,4%
Pioglitazone	80,4%	50,0%	88,7%	100,0%
Metformin + Alogliptin	76,0%	50,0%	72,3%	50,0%
Gliclazide	70,0%	47,4%	61,8%	38,9%
Empagliflozin	68,4%	44,0%	64,9%	40,0%
Dulaglutide	68,3%	50,0%	67,7%	50,0%
Dapagliflozin	67,7%	33,3%	64,5%	41,7%
Metformin	65,6%	45,5%	61,9%	40,0%
Sitagliptin	64,3%	36,4%	65,7%	33,3%
Vildagliptin	61,2%	33,3%	42,2%	33,3%
Glibenclamide	55,5%	50,0%	52,7%	50,0%
Liraglutide	54,2%	28,6%	51,5%	16,7%

- After 1 year of follow-up, the mean adherence rate varied between 54.2% (liraglutide) and 99.3% (metformin + empagliflozin). All patients using empagliflozin + metformin, ertugliflozin, acarbose or metformin + linagliptin had PDC $\geq$ 80% for the same period (table 2).
- Within 2 years of follow-up, the mean adherence rate varied between 42.2% (vildagliptin) and 89.0% (metformin+dapagliflozin). All patients using pioglitazone + alogliptin had PDC $\geq$ 80% for the same period.

- The mean EQ-5D-5L index score was 0.84 (SD=0.24) and the mean VAS score was 63.5 (SD=19.6) (table 3).

Table 3. EQ-5D-5L results

Index Score	
Mean (SD)	0.84 (0.24)
Median (IQR)	0.92 (0.78-1.00)
VAS	
Mean (SD)	63.5 (19.6)
Median (IQR)	60.0 (50.0-80.0)

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