The Interprofessional Medication Adherence Program (IMAP) supported patients' medication adherence during the COVID-19 lockdown in Switzerland

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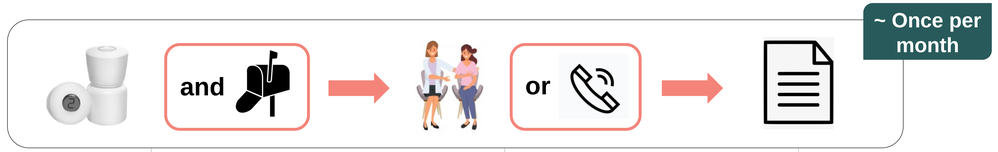
Question

To what extent **medication adherence** was impacted by the COVID-19 lockdown in patients included in the Interprofessional Medication Adherence Program (IMAP)?

The IMAP worked routinely during the Covid-19 pandemic



Patients with **diabetic kidney disease (DKD), solid cancer, HIV, miscellaneous long-term diseases** used **electronic monitor(s) (EMs)** which register daily doses intake

Adherence intervention:
- **Electronic based feedback**
- **Face-to-face motivational interviews** with a pharmacist

Adherence report sent to the patient's health care providers

During the lockdown: medicines were sent by mail

During the lockdown: interviews were hold by phone calls

Methods

Patients' implementation (i.e., the extent to which the patient takes the prescribed medicine) was defined through a proxy: if all EMs used by a patient were opened at least once daily, implementation was considered optimal (=1); and suboptimal (=0) otherwise.

Implementation was **compared** around the Swiss lockdown periods:
- **Before**: from December 1, 2019 to March 15, 2020
- **During**: March 16 to June 7, 2020
- **After**: June 8 to September 30, 2020

To compare variations across a year, patients' implementation within the same periods in 2018-2019 (winter, spring, summer) were analysed.

Statistical Analysis

A **logistic regression** model estimated implementation **according to the period.** Reference: "before the lockdown" or "winter".

The models were fitted using **generalized estimating equations.**

Sensitivity analyses were performed to ensure the quality of results.

Results

Empirical patients' implementation and GEE modelisations in 2020 (Fig. 1) and 2019 (Fig. 2)

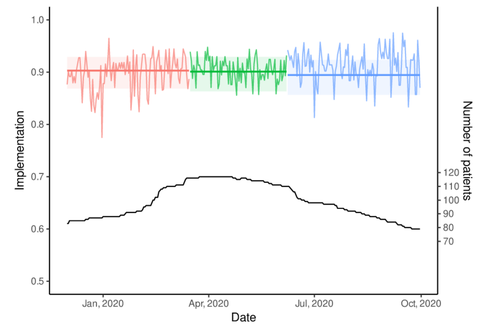


Fig. 1

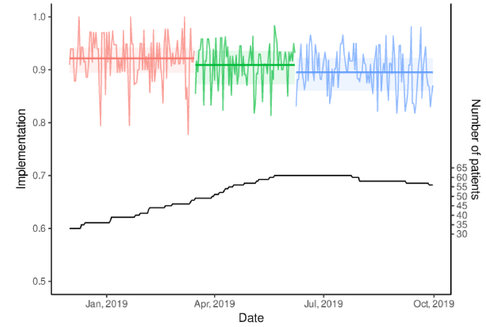


Fig. 2

EM database 2020, all patients (n=118)							
Periods	**Implementation**			**Odds ratio**			
	Estimate	**95% CI**		**Estimate**	**95% CI**		**p-value**
Before	0.903	0.869	0.929	Reference			
During	0.901	0.863	0.929	0.979	0.835	1.147	0.789
After	0.895	0.856	0.923	0.911	0.787	1.056	0.217
EM database 2019, all patients (n=61)							
Periods	**Implementation**			**Odds ratio**			
	Estimate	**95% CI**		**Estimate**	**95% CI**		**p-value**
Winter	0.922	0.894	0.942	Reference			
Spring	0.909	0.873	0.936	0.852	0.706	1.029	0.097
Summer	0.895	0.860	0.923	0.728	0.596	0.891	0.002

Table 1. Patients' implementation across the periods in 2020 and 2019

Conclusions

Medication implementation remained **steady** before, during and after the lockdown in **2020**, whereas a **decrease in implementation** was observed during summertime in **2019**.

IMAPs that are tailored to patients' needs, ensure **continuity of care** and **avoid gaps in medication supply** by the regular mailing of treatment contribute to supporting patients during periods of **routine disturbances** such as **lockdowns** in a pandemic context.

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