Assessment of the French national experimentation for incentivising hospital prescriptions of adalimumab biosimilars delivered in retail pharmacies

Tano M, Degrassat-Théas A, Ribault M, Paubel P (General Agency of Equipment and Health Products (AGEPS), Assistance Publique-Hôpitaux de Paris (AP-HP)

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OBJECTIVES: Regarding the low penetration of biosimilar (BS) drugs in the French market, the government has introduced **two incentives to increase BS use**. Since February 2018, **the "general case" redirects 20%** of the price difference between reference product and its BS **to hospitals** for every BS delivered in community pharmacy from these hospital's prescriptions. Then, **the "experimental case"** increases the premium to **30%** by specifically **targeting prescribing hospital clinical units** for every BS delivered in community pharmacy from these clinical unit's prescriptions. The experimentation started in October 2018 and concerned etanercept and insulin glargine. It was then **extended to adalimumab in April 2019**. Our study aimed to compare the efficacy of both incentives for **adalimumab BS** after 19 months (from April 2019 to October 2020).

METHOD: We used IQVIA Xponent data to evaluate public hospitals' prescriptions. The number of adalimumab boxes delivered in retail pharmacies was given on a monthly basis, and was linked to the corresponding hospital's prescription. The **comparison between hospitals in the experimentation and the others** was assessed by a **double difference method**.

RESULTS:

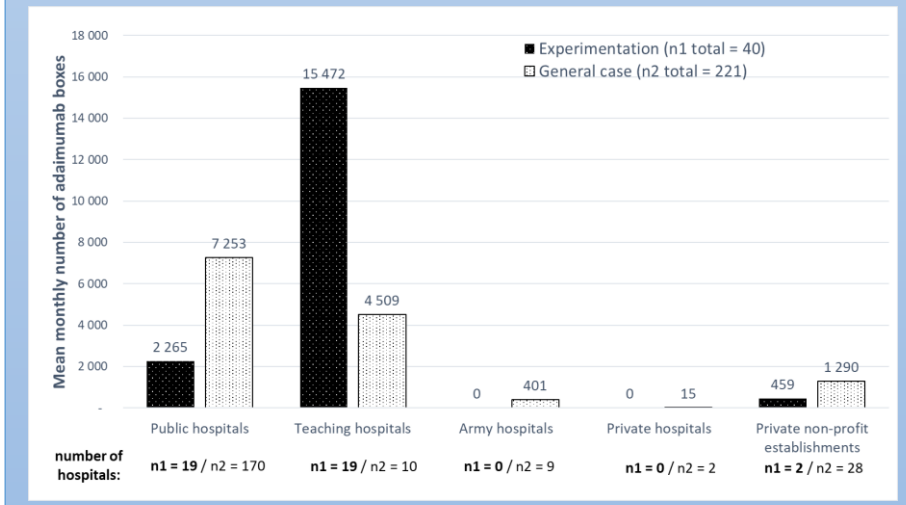


Fig 1: Mean monthly number of adalimumab boxes by category of health facilities included in the analysis by incentive group

Among the 40 hospitals studied in the "experimental case", 96% were public. They were compared to 221 other hospitals ("general case") of which 82% were public. The experimental case group does not include any private or military hospitals (fig.1).
Adalimumab was prescribed more frequently in hospital under experimentation than those under the general incentive and particularly by teaching hospitals.

From October 2018 to October 2020, a consistent volume of adalimumab was delivered in retail pharmacies (31,600 boxes per month in median) ; **the experimental group held 57.5% of this market**.
Adalimumab BS market share increased from 4% in January 2019 to 32% in October 2020. Hospitals under experimentation account for the majority of this market (61.5% on average).
Prior to the experiment during period 1 (from October 2018 to March 2019), the mean rate of adalimumab BS was 5.1% for hospitals in the experimental case and 3.6% for those in the general case. These mean rates steadily increased reaching 28.9% and 21.2% respectively during period 2 (from April 2019 to October 2020) (fig.3). The **double difference estimator was 6.2 %** but was **not significant** (fig 3).

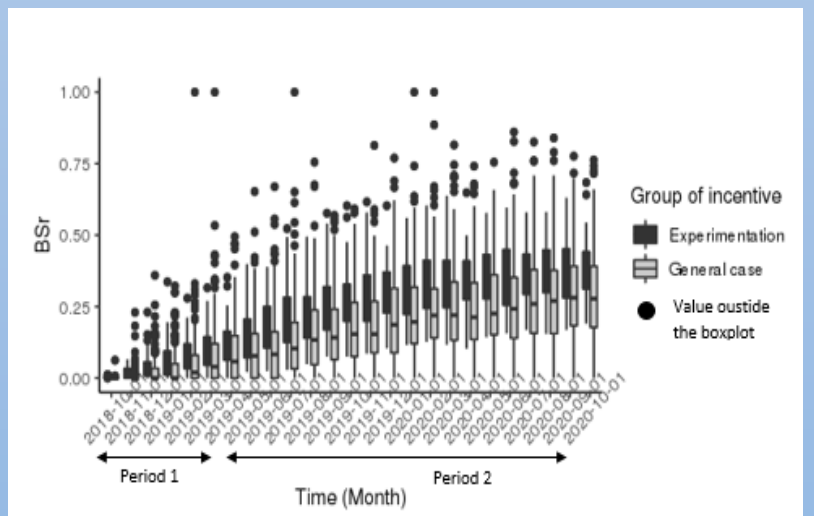
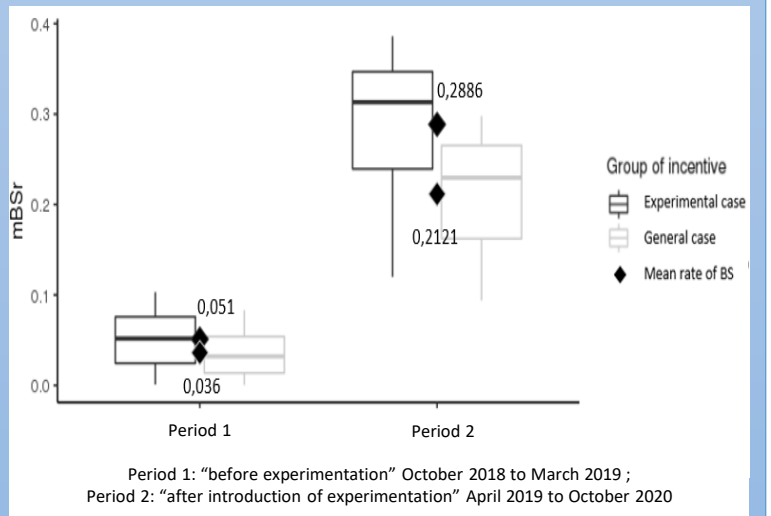


Fig 2: Monthly distribution of the rate of adalimumab biosimilar (BSr) by incentive group



Period 1: "before experimentation" October 2018 to March 2019 ;
Period 2: "after introduction of experimentation" April 2019 to October 2020

Fig 3: Distribution of the monthly mean rate of adalimumab biosimilar (mBSr) by incentive group before (P1) and after (P2) the introduction of the experimental incentive

CONCLUSION: Contrary to the same experiment for etanercept, we cannot conclude to an advantage of incentivising clinical care units to increase the use of adalimumab BS. Nonetheless, we see a trend in which the difference between the two incentives favors the experimental case. Both experimentation and marketing of adalimumab's biosimilars are more recent and there is still room for improvement. A new assessment should be done in September 2022 at the end of the experimentation.

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Contact : marionama.tano@aphp.fr