

OBJECTIVES

Monoclonal antibodies (mAbs) used in oncology.



More than **70%** of the French market share of the antineoplastic agents.

The launch of intravenous (IV) biosimilar drugs (BS) promises cost savings, although development of subcutaneous (SC) forms may impede competition.

The study aims to evaluate how the SC forms challenge the BS penetration in Paris University Hospitals (AP-HP) and French hospitals.

METHODS

This analysis focuses on three mAbs from January 2018 to December 2022. → trastuzumab → rituximab → daratumumab

These three mAbs are the only anti-cancer mAbs to have both an IV and a SC form. Among them, only daratumumab has no biosimilar.

Data were collected from the Agency for Information on Hospital Care database (french agency).

RESULTS

- The number of chemotherapy sessions involving the three mAbs administration between 2018 and 2022 has increased by **11%** (French hospitals) and **16%** (AP-HP).
- Spending has increased by **67%** and **34%** respectively (Table 1).

TABLE 1 : NUMBER OF SESSIONS AND SPENDING INVOLVING THE THREE MABS

Year	Number of sessions		Spending	
	AP - HP	France ¹	AP - HP	France
2018	30 487	431 744	60 069 026 €	575 646 021 €
2019	32 516	420 319	53 618 129 €	559 842 937 €
2020	32 886	440 357	56 499 697 €	611 203 382 €
2021	32 712	473 176	58 041 504 €	781 197 235 €
2022	35 301	480 552	80 391 000 €	961 045 585 €

¹ France corresponds to all French hospitals including those of the AP-HP.

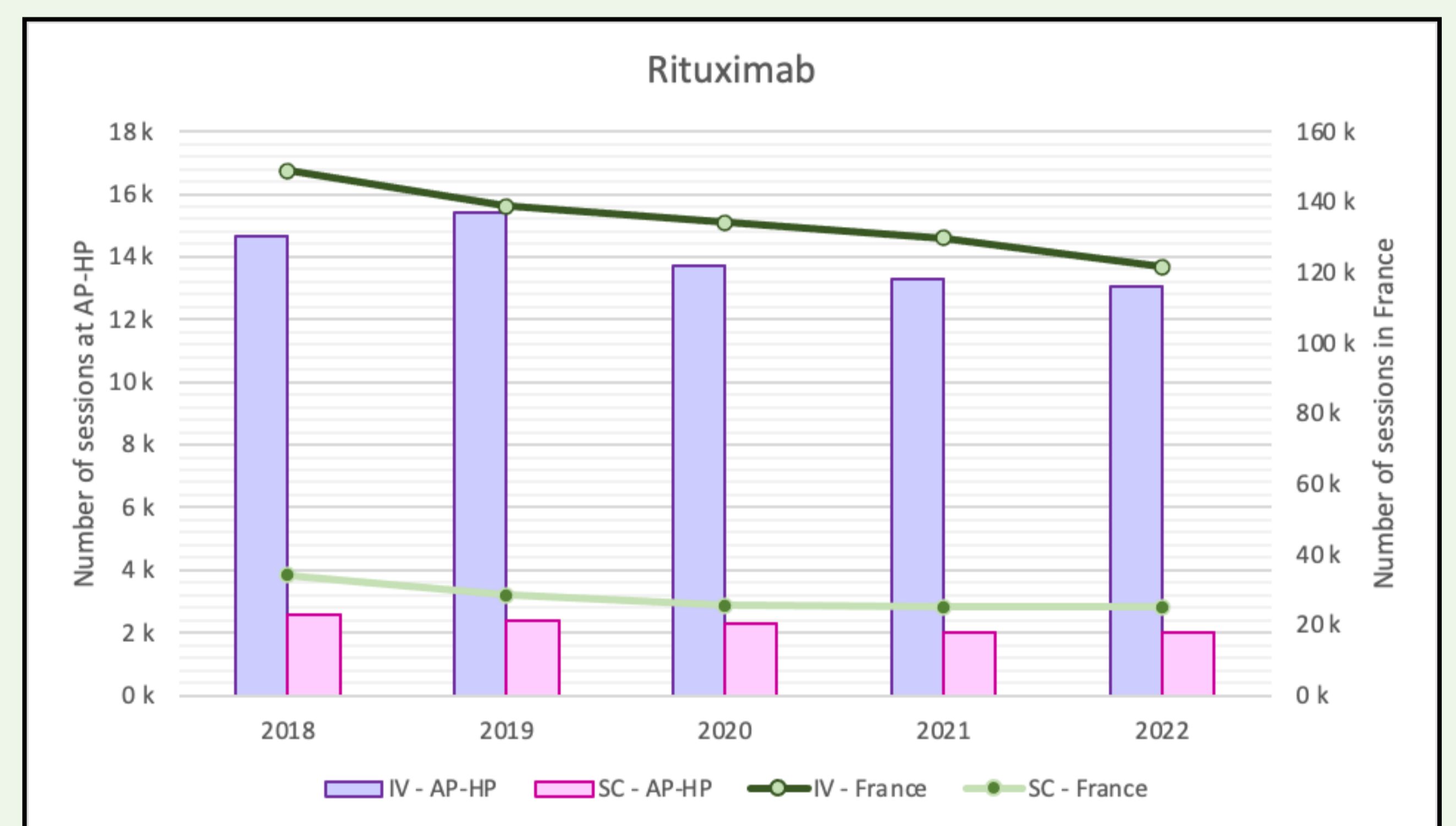


FIGURE 3 : COMPARAISON OF THE USE OF RITUXIMAB IV AND SC IN FRANCE AND AP-HP

Over the period, IV (more than 95% are BS) and SC rituximab chemotherapy sessions are constant: **17%** (France) and **14%** (AP-HP) for SC forms, which are not widely used due to restricted indications compared to IV form (Fig. 3).

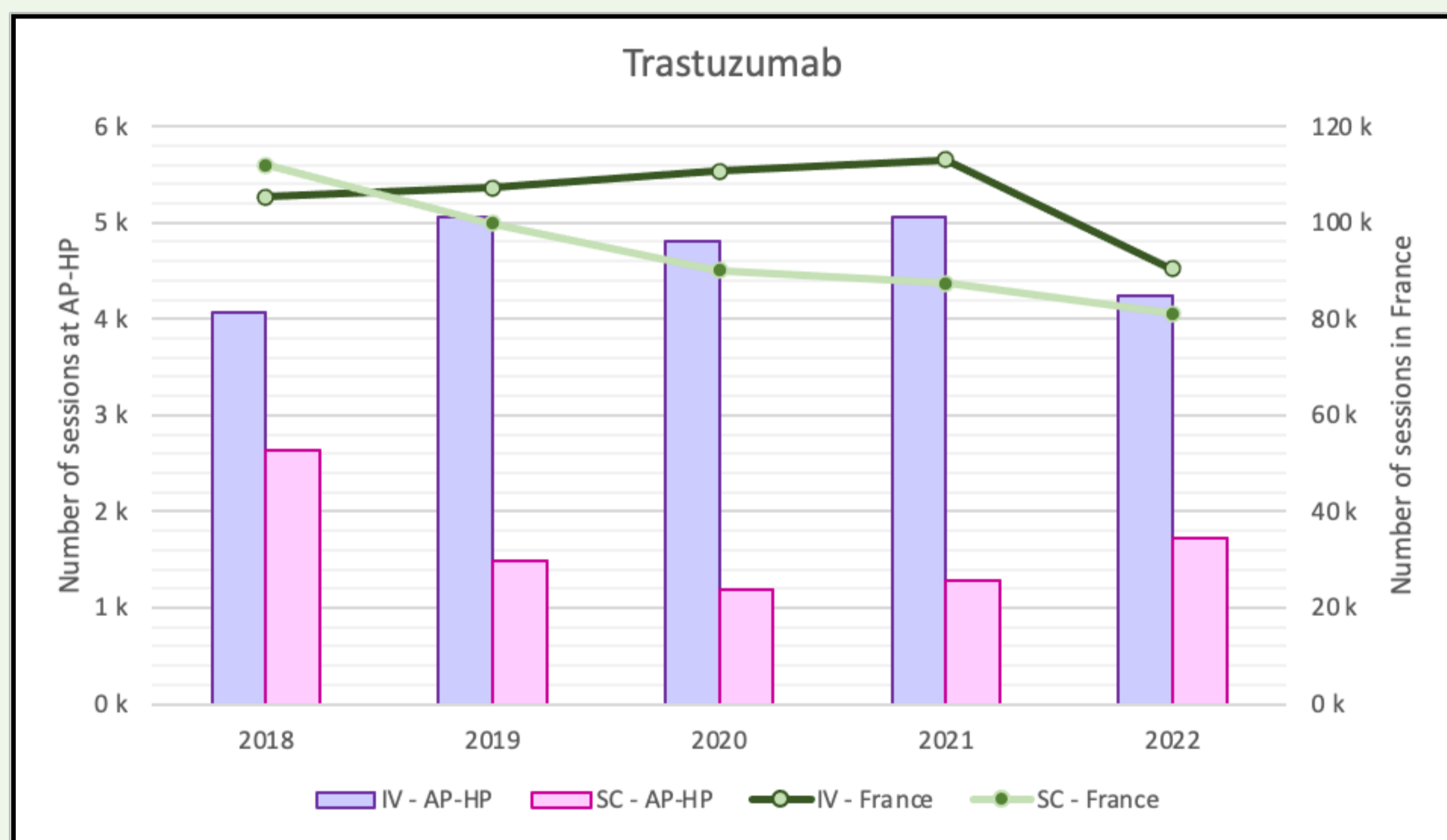


FIGURE 2 : COMPARAISON OF THE USE OF TRASTUZUMAB IV AND SC IN FRANCE AND AP-HP

In 2018, SC trastuzumab was used in 52% (France) and 39% (AP-HP) of sessions. Since the BS launch (2019), the use of the SC form has plummeted at AP-HP (**23%**), but it remains administered in **46%** of stays at national level (Fig. 2).

The BS penetration rate in 2022 is **68%** (France) and **93%** (AP-HP).

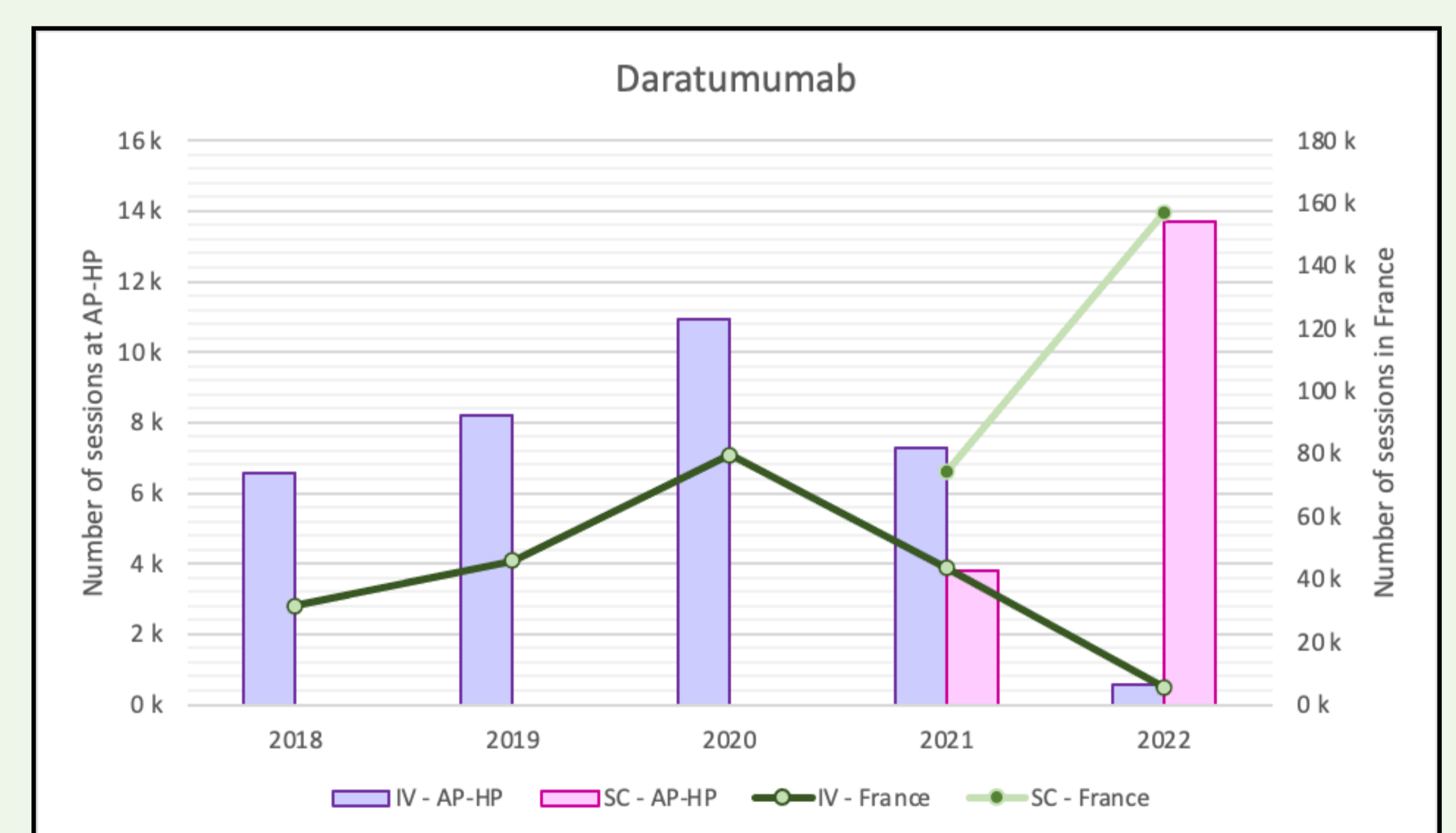


FIGURE 4 : COMPARAISON OF THE USE OF DARATUMUMAB IV AND SC IN FRANCE AND AP-HP

Since the SC launch of daratumumab in 2021, the SC form has taken **more than 95%** of the market share for both France and AP-HP, which will complicate the arrival of BS (Fig.4).

DISCUSSIONS AND CONCLUSIONS

Overall, when IV BS are available, they are mostly administered. Nevertheless, SC forms offer some organizational advantages which have an impact on BS penetration.

The three SC forms studied have different use profiles. The extent to which BS are used in comparison with reference mAbs depends on the local ecosystem, in particular the saturation point of day hospitals and human resources.