

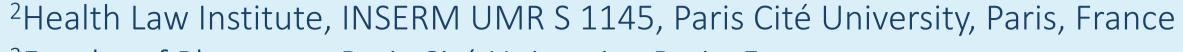
# DEVELOPMENTS IN ANTICANCER DRUGS PREPARATION ACTIVITY IN HOSPITALS PHARMACIES UNITS (HPU) AND THEIR IMPACT ON THE ACTIVITY OF PARIS UNIVERSITY HOSPITALS (AP-HP)



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# **OBJECTIVES**

Hospitals pharmacies units (HPU) are responsible for preparing antineoplastic agents which include cytotoxics and monoclonal antibodies (mAbs).

### Between 2017 and 2022:

- > The overall number of sessions involving injectable anticancer drug administration is increasing.
- ➤ AP-HP's spending for injectable anticancer drugs administered during sessions has nearly doubled reaching nearly €400M in 2022.

The study aims to take stock of HPU activity in relation to medical staff ratios for 5,000 preparations.

## **METHODS**

- Annual summary tables provided by the fourteen HPU of AP-HP for chemotherapy preparation activity.
- > Internal order management software for spendings.
- ightharpoonup Time horizon: 01/01/2017  $\longrightarrow$  31/21/2022

We compared the evolution of anticancer drug consumption and chemotherapy preparation activity in relation to the ratio of medical staff for 5,000 preparations.

#### **RESULTS**

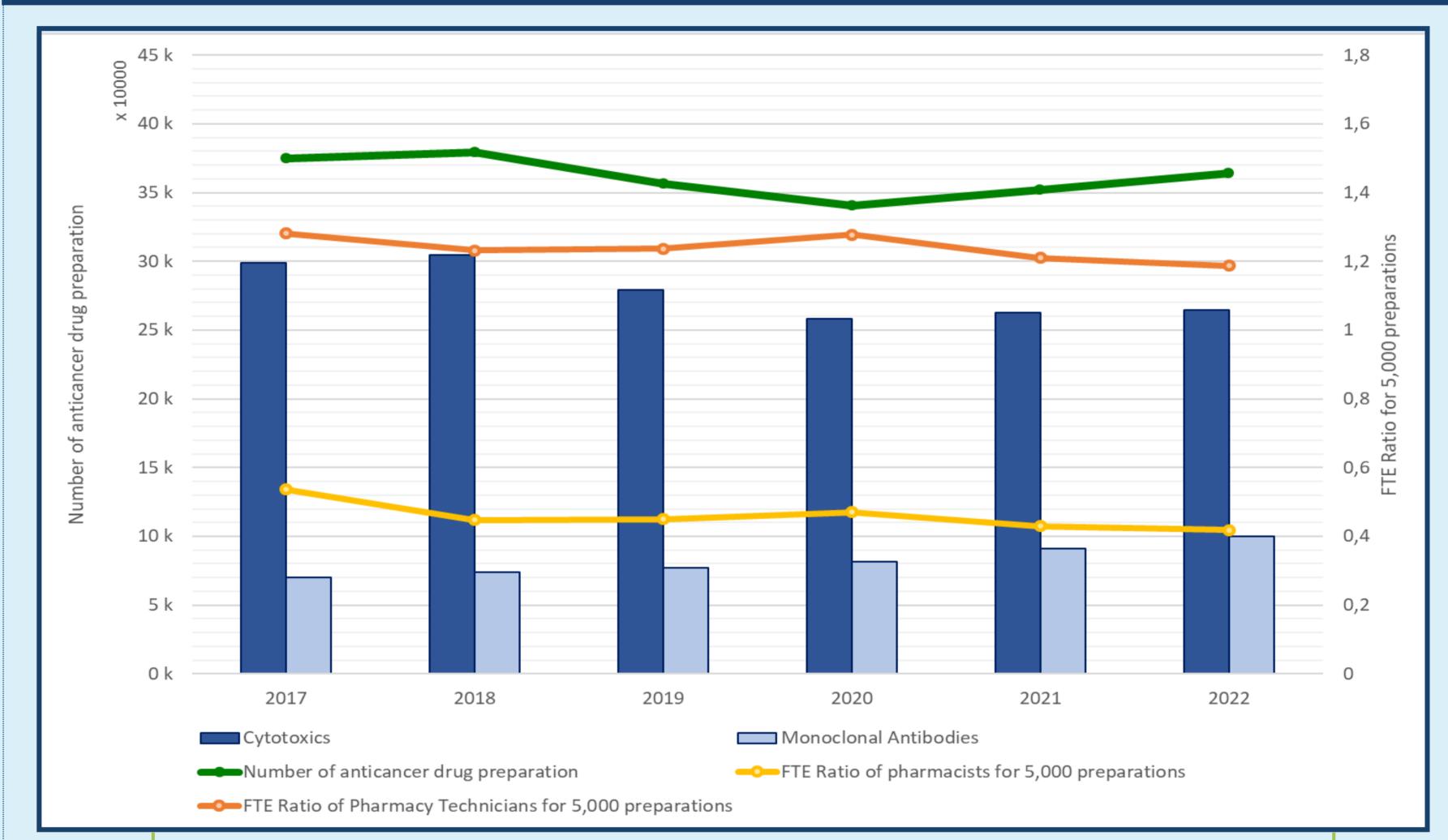


FIGURE 1: DEVELOPMENTS IN ANTICANCER DRUG PREPARATION IN HPU IN RELATION TO THE FTE RATIO OF PHARMACIST AND PHARMACIST TECHNICIANS

The full-time equivalent (FTE) ratio of pharmacists and pharmacy technicians for 5,000 preparations fell from 0,54 and 1,28 to **0,42** and **1,19** respectively. Due to a staff shortage, part of the mAbs production is done directly in the unit care by nurses (Fig. 1).

AP-HP's spending for drug administered during sessions increased (Fig. 2):

- From 200M€ to 396M€ for injectable anticancer drug.
- From 144M€ to 290M€ for monoclonal antibodies.

The number of preparations realized by HPU has decreased slightly from 375k in 2017 to 356k in 2020, but has increased over the last two years (364k in 2022) (Fig. 1).

It has been driven by an increase in mAbs production since 2017 (70k in 2017 versus **100k** in 2022), as opposed to cytotoxics which have decreased (299k in 2017 versus **264k** in 2022).

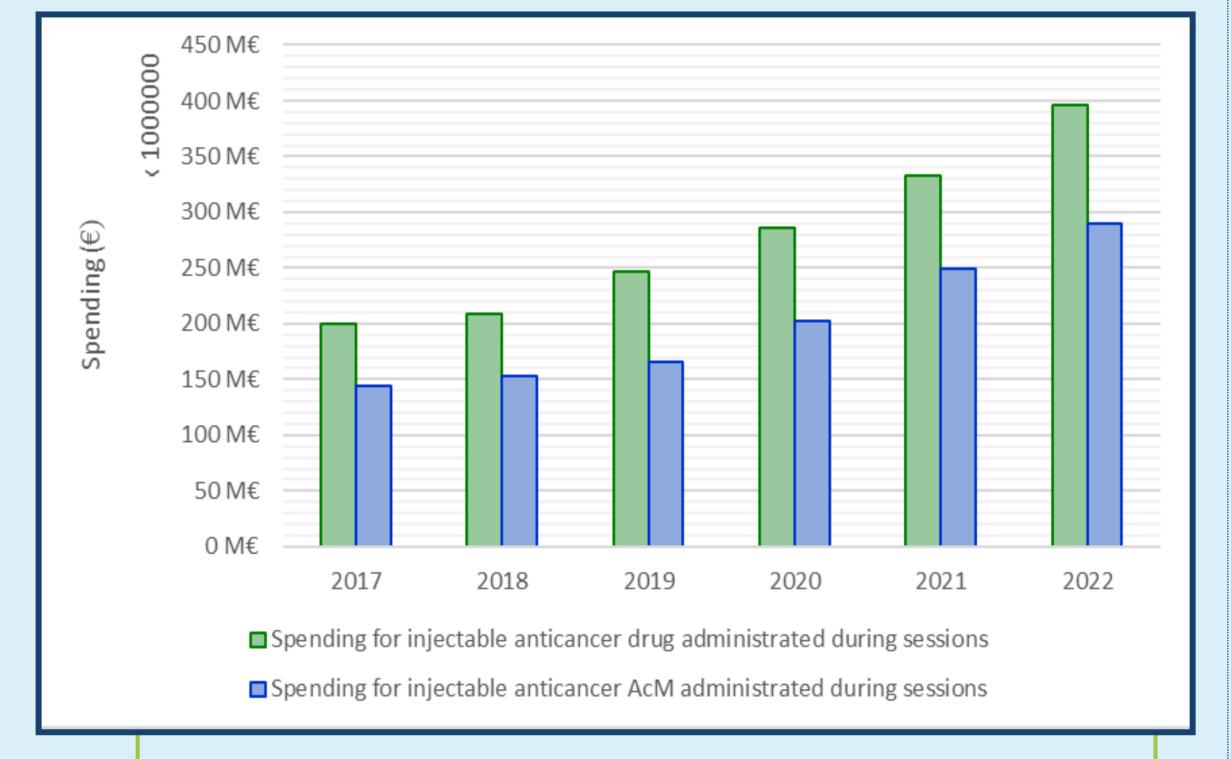


FIGURE 2 : TRENDS IN EXPENDITURE OF INJECTABLE
ANTICANCER DRUGS AND MONOCLONAL ANTIBODIES

#### DISCUSSIONS AND CONCLUSIONS

The FTE ratio for medical staff reduced between 2017 and 2022. This trend does not reflect the increasing number of temporary workers, and the training time they need/receive.

This contrasts with the increase in the number of preparations, particularly of mAbs, and the rise in spending on these drugs.