

# HIV Testing Practices by Clinical Service Before and After Revised Testing Guidelines in a Swiss University Hospital

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## INTRODUCTION

- Early HIV diagnosis reduces morbidity & mortality and prevents onward transmission.
- In keeping with newly recognised associations between HIV infection and other diseases, the Swiss Federal Office for Public Health published new guidelines for HIV testing in March 2010 [1]. These guidelines introduced Physician Initiated Counselling & Testing (PICT), and recommended HIV testing in four broad settings which are summarised in Box 1, below.
- We examined the effect of these new guidelines on HIV testing practices in a 1300-bed university hospital in Lausanne, Switzerland, where HIV prevalence is estimated to be 0.4%

## METHODS

HIV testing laboratory database

Patient turnover database

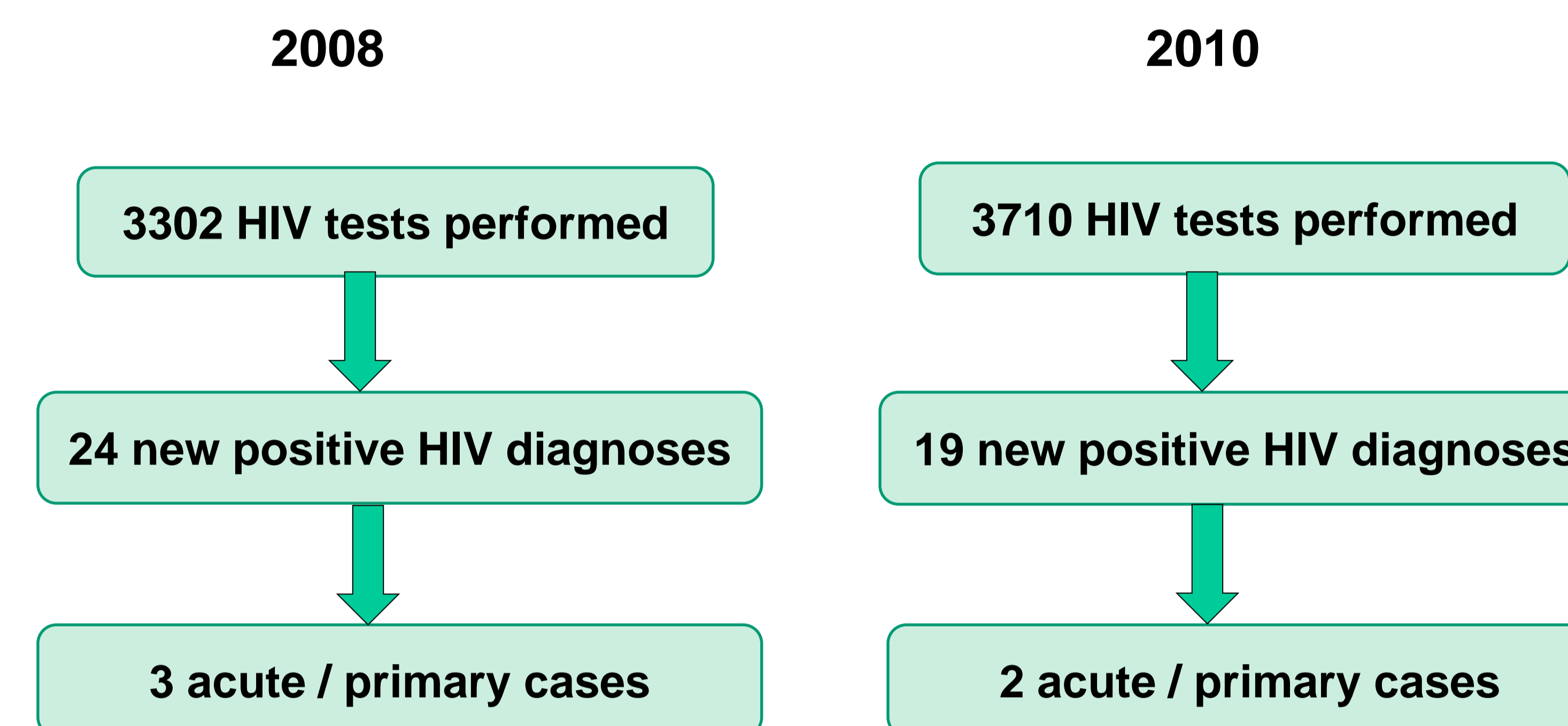
- Using the two hospital databases above,
  1. We examined the number of HIV tests requested by ten clinical services (listed in Table 1) throughout 2008 and 2010 (pre- & post-PICT guidelines) and
  2. We expressed the number of patients tested as a percentage of the number of patients seen in each service during the two 12-month periods (HIV testing rate, shown below).

$$\text{HIV testing rate}^* = 100 \times \frac{(\text{number of tests performed})}{(\text{number of patients seen})}$$

1. Antenatal outpatients (OP)
2. Neurology inpatients (IP)
3. Cardiology inpatients (presenting with acute coronary syndromes)
4. Surgery inpatients
5. Intensive Care Unit (ICU)
6. Emergency Department (ED)
7. Oncology outpatients (excluding haematology patients)
8. Internal Medicine inpatients
9. Psychiatry inpatients
10. Medical outpatients

Table 1. Clinical services studied

Total tests performed and number positive in the ten clinical services studied:



- Taken together, the Antenatal OP, Medical OP and ED services made up 67% (2008) to 69% (2010) of the total number of tests performed (Fig 1).
- However, when considering testing rates, the ED had the lowest figures (Fig 1).
- In spite of increasing epidemiological links between HIV infection and malignancies that are not AIDS-defining, the Oncology outpatient service had the third lowest HIV testing rate (Fig 1).
- There was no significant increase in the absolute number of tests nor in testing rates between 2008 (pre-PICT guidelines) and 2010 (post-guidelines) ( $P=0.9$ ).

### PICT guidelines

HIV testing is recommended in the following settings:

1. Symptoms or signs of acute HIV infection (AHI);
2. When HIV is among the differential diagnoses, in the cases of: symptoms/signs of AHI, sexually transmitted infections, neurological syndromes (dementia, meningitis, encephalitis, facial paralysis, polyneuropathy) and AIDS-defining illnesses as well as screening of pregnant women and blood/organ donors;
3. Individuals with high risk behaviour;
4. Occlusive vascular events (myocardial infarction, stroke, impotence of vascular origin), when HIV testing should be based on risk assessment.

Box 1: Clinical settings in which the health care provider should consider HIV testing as listed in the March 2010 guidelines of the Swiss Federal Office for Public Health

## RESULTS

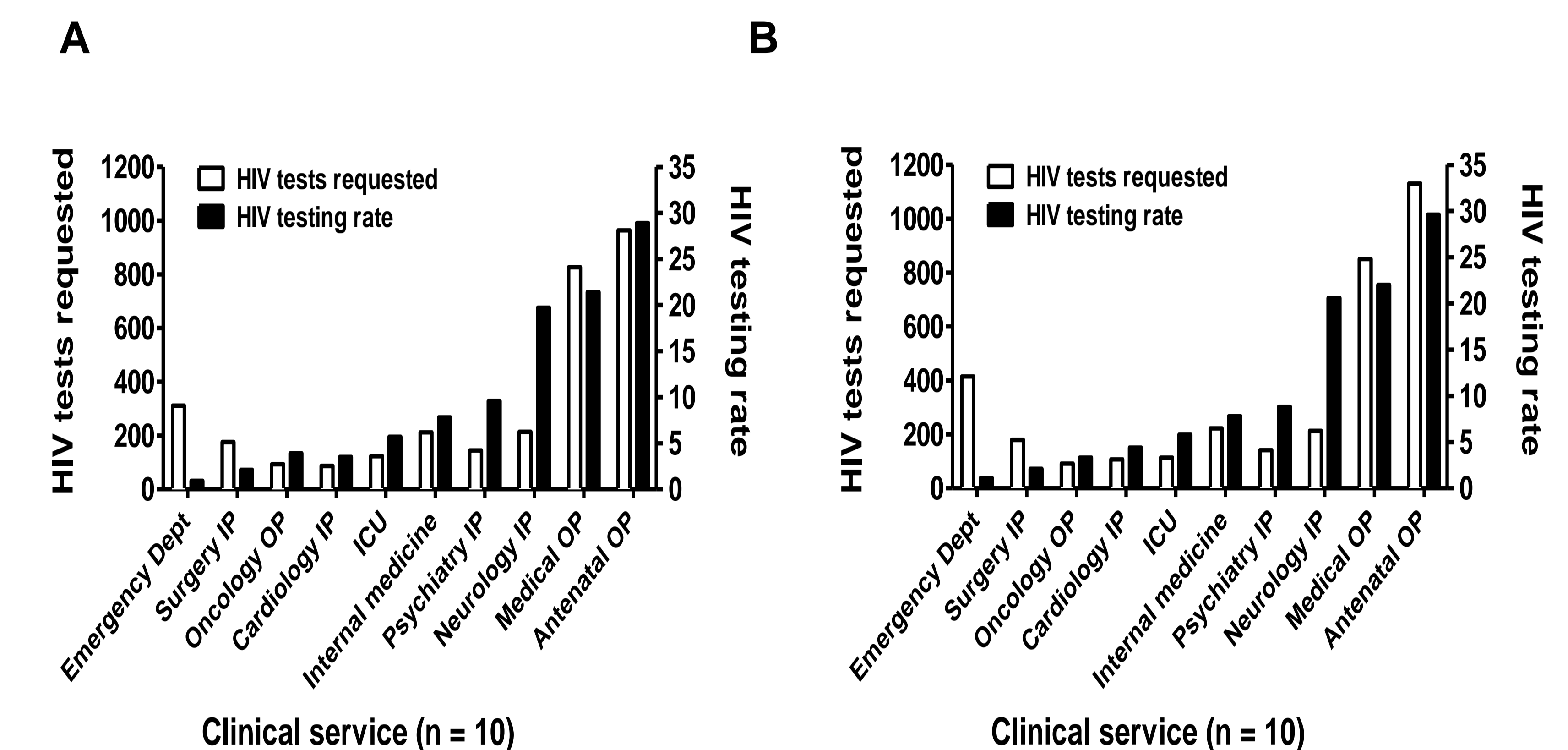


Fig 1. Absolute number of HIV tests performed & HIV testing rate\* in ten clinical services in 2008 (A) and 2010 (B)

- A sub-analysis of surgical specialties, notably those relevant to the updated HIV testing guidelines such as cardiothoracic and vascular surgery and urology, showed no increase in HIV testing with time (data not shown).
- We also found no correlation between duration of hospital stay for inpatients and rate of HIV testing.

## CONCLUSIONS

- Using an easily reproducible two-database tool, we observe no global nor service-related improvement in HIV testing rates in our hospital following the introduction of new national testing guidelines, but do identify services where testing practices merit review.
- This study may show the limit of PICT strategies based on physician risk assessment, compared to the opt-out approach for HIV testing.

## REFERENCES

1. Office fédéral de la santé publique. Dépistage du VIH effectué sur l'initiative des médecins: recommandations pour les patients adultes. [www.bag.admin.ch/dokumentation/publikationen/](http://www.bag.admin.ch/dokumentation/publikationen/). Bulletin 11/10. 2010:364-366