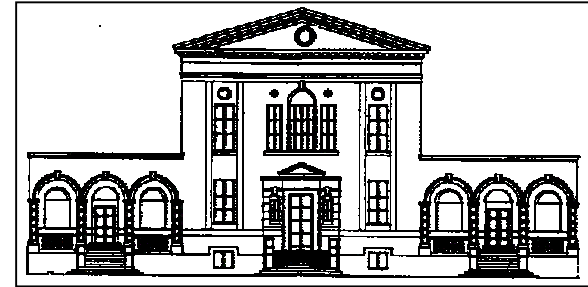




Viral
Hepatitis Prevention
Board



26th hepatitis B, hepatitis C, and other blood-borne infections in health-care workers

Rome, Italy, March 17-18, 2005.

“Look-back studies”

Vincenzo Puro, Paola Scognamiglio

**LOOKBACK STUDIES
OR
PATIENT NOTIFICATION EXERCISE
OR
TRACE BACK INVESTIGATION**

Retrospective investigation

- triggered by the identification of HCW with B-B pathogen infection, following or not documented cases of HCW-to-Pts transmission
and
- conducted on patients potentially exposed to the infected HCW

LOOKBACK STUDIES

Objectives

- ✓ **TO INFORM PATIENTS ABOUT THE DEGREE OF RISK**
- ✓ **TO DETECT INFECTIONS and TO PROVIDE CARE**
- ✓ **TO PREVENT FURTHER TRANSMISSION**
- ✓ **TO COLLECT DATA TO ESTIMATE THE RISK**

LOOKBACK STUDIES

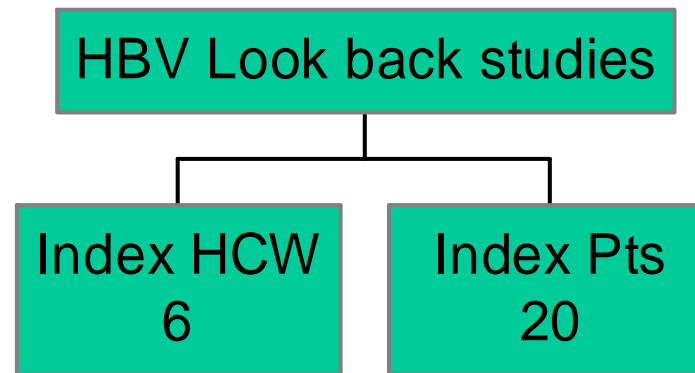
- 1. WHEN A PATIENT NOTIFICATION EXERCISE SHOULD BE CONDUCTED?**
- 2. HOW FAR BACK PATIENT NOTIFICATION SHOULD GO?**
- 3. WHICH PATIENTS SHOULD BE INCLUDED?**

Lookback to available evidence.....

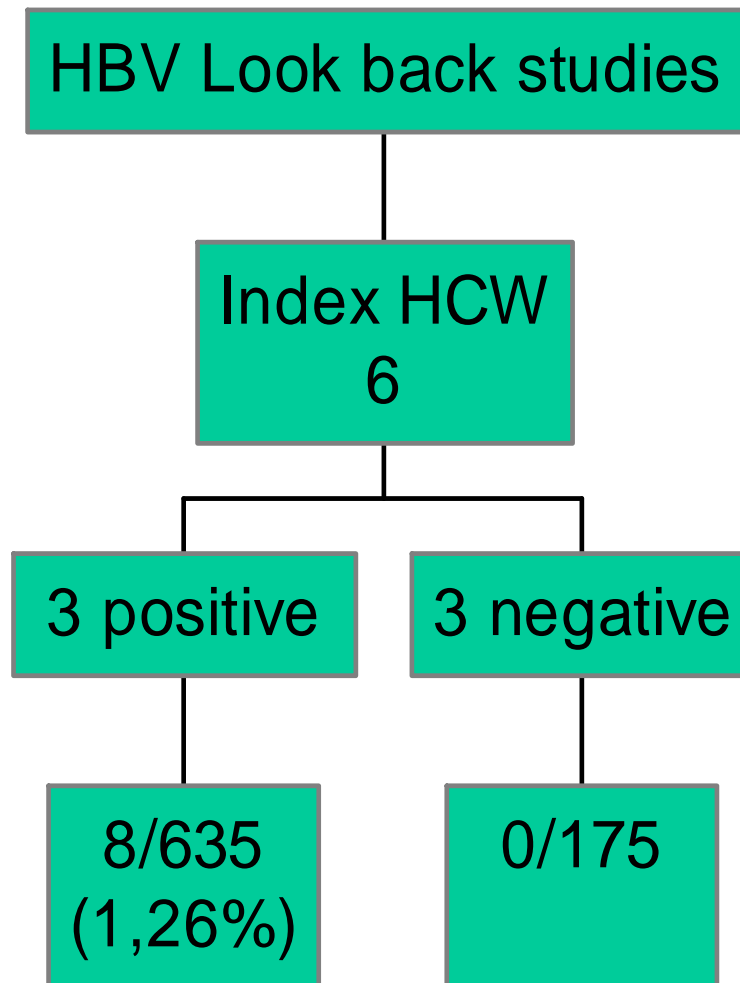
HCW-to patient HBV transmission 1972- 2005

| | |
|--------------------------|-------------------|
| Episodes | 50 |
| HCWs | 49 |
| Look back studies | 26 |
| Exposed | 29,507 |
| Tested | 20,100 |
| Identified | 360 (1.8%) |

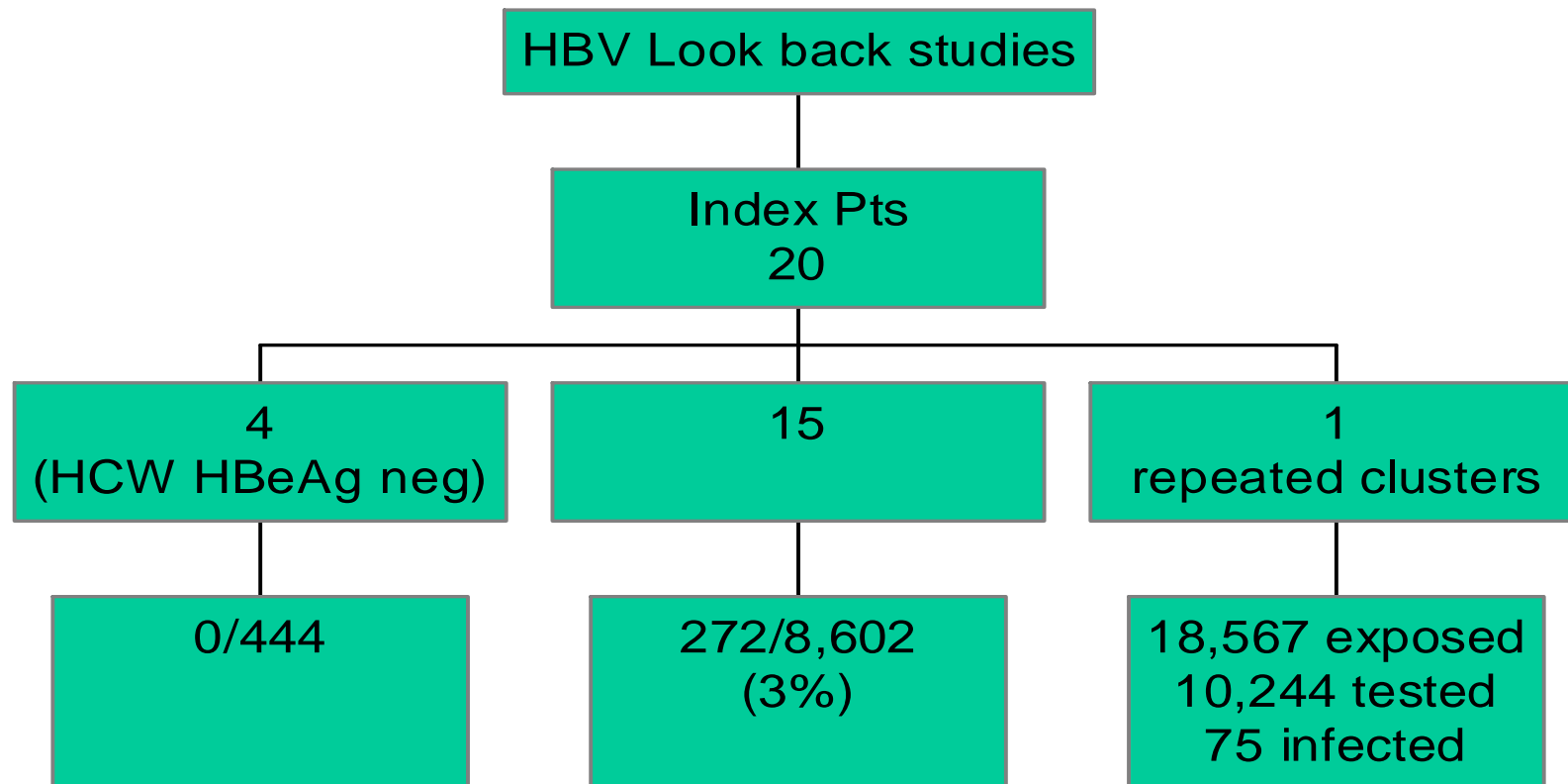
HCW-to patient HBV transmission 1972- 2005



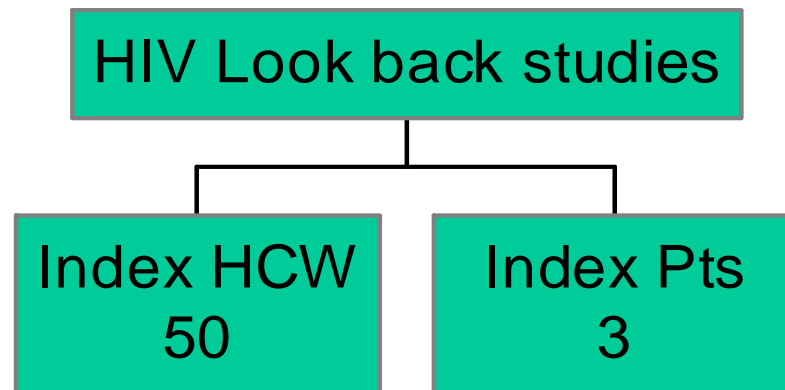
HCW-to patient HBV transmission 1972- 2005



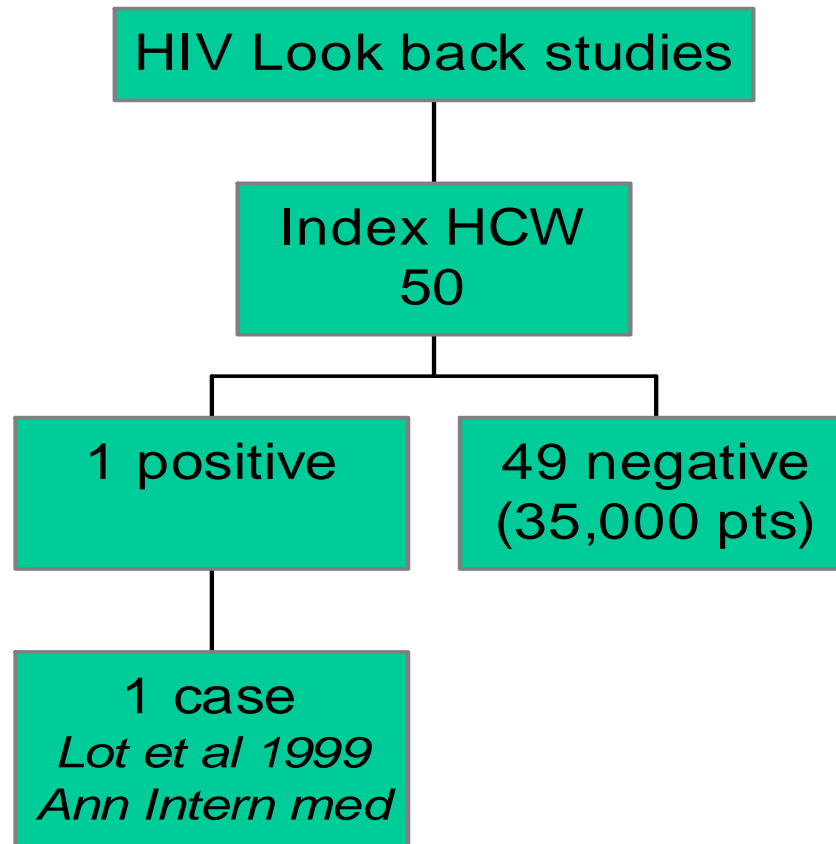
HCW-to patient HBV transmission 1972- 2005



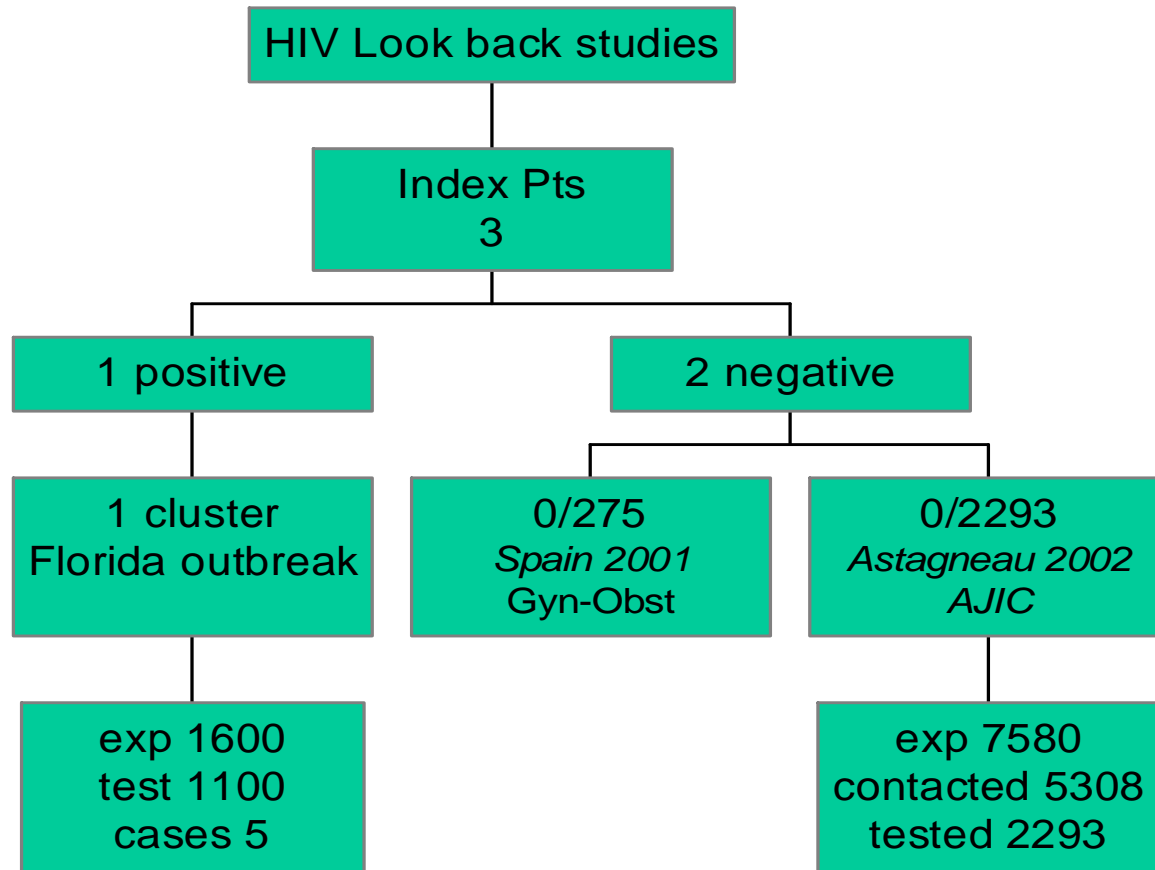
HCW-to patient HIV transmission



HCW-to patient HIV transmission



HCW-to patient HIV transmission



HCW-to patient HCV transmission

HCV Look back studies

```
graph TD; A[HCV Look back studies] --> B[Index HCW 5]; A --> C[Index Pts 7];
```

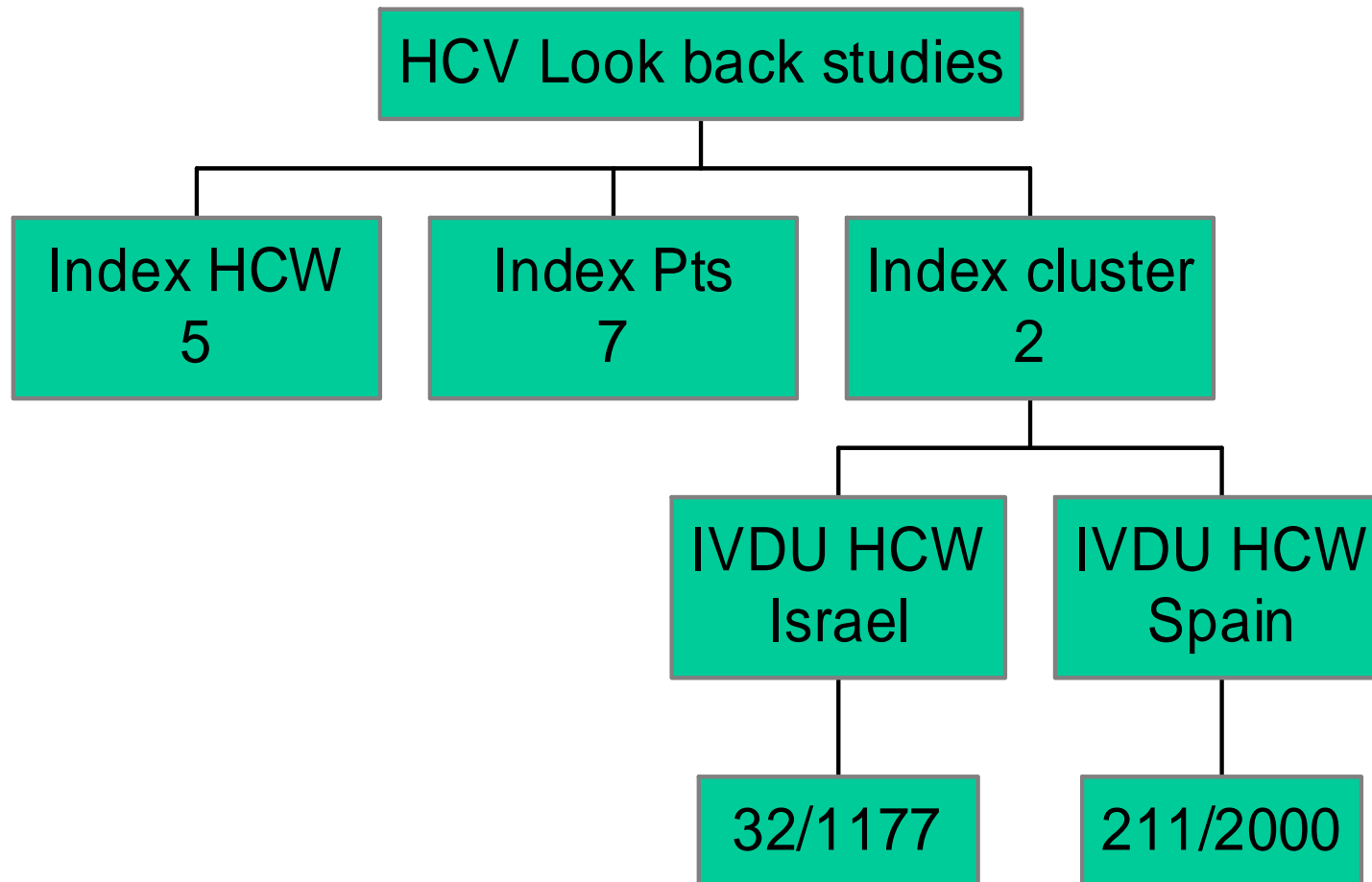
Index HCW

5

Index Pts

7

HCW-to patient HCV transmission



HCW-to patient HCV transmission

From: ProMED-mail promed@promedmail.org

Source: The Harlow Star, Tue 29 May 2001

Consequences of nosocomial transmission of HCV in Surrey hospital

Hospital chiefs in Harlow (Essex) are offering blood tests to more than 70 patients after a former member of staff was found to have contracted hepatitis C.

An investigation began in the autumn after the virus was transmitted to a patient at Epsom General Hospital in Surrey. The infection was traced to an individual who went on to work in the Women's Health Department at Princess Alexandra Hospital (PAH) [in Harlow, Essex] and has since left. A search through 850 patient records at PAH covering the period from autumn 2000 to early this year [showed] that 67 mothers and 7 babies may have been placed at risk. Those affected have now been informed by letter and offered blood tests.

HCW-to patient HCV transmission

HCV Look back studies

```
graph TD; A[HCV Look back studies] --> B[Index HCW 5]; A --> C[Index Pts 7];
```

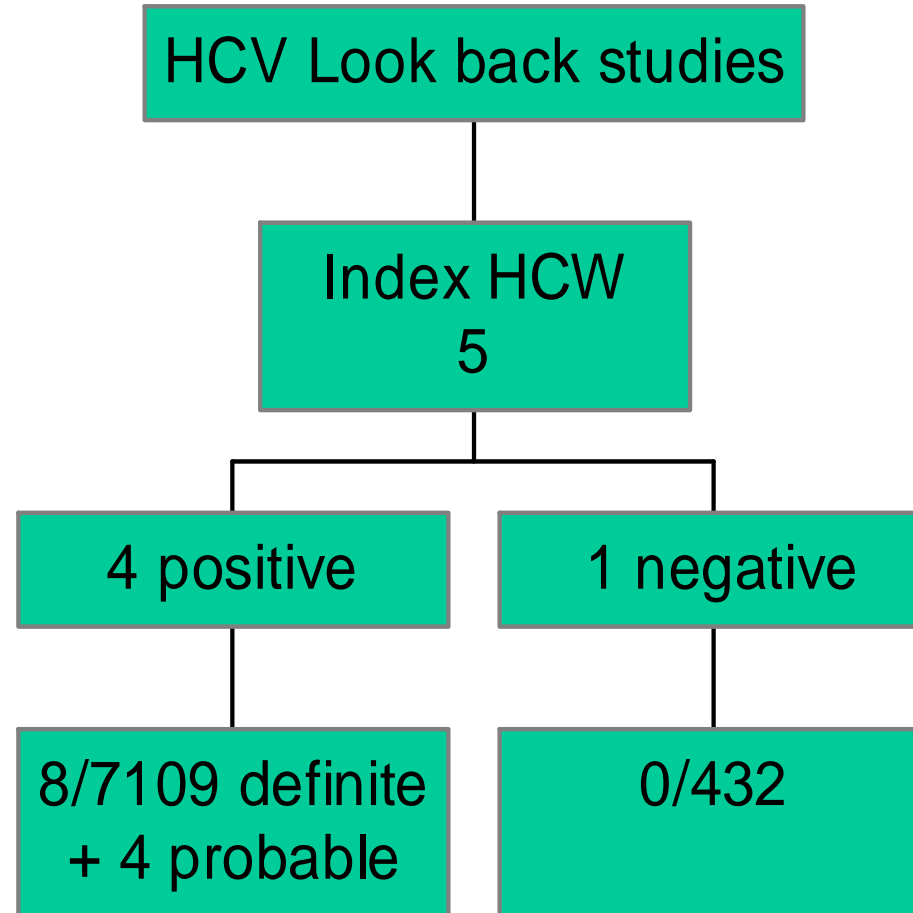
Index HCW

5

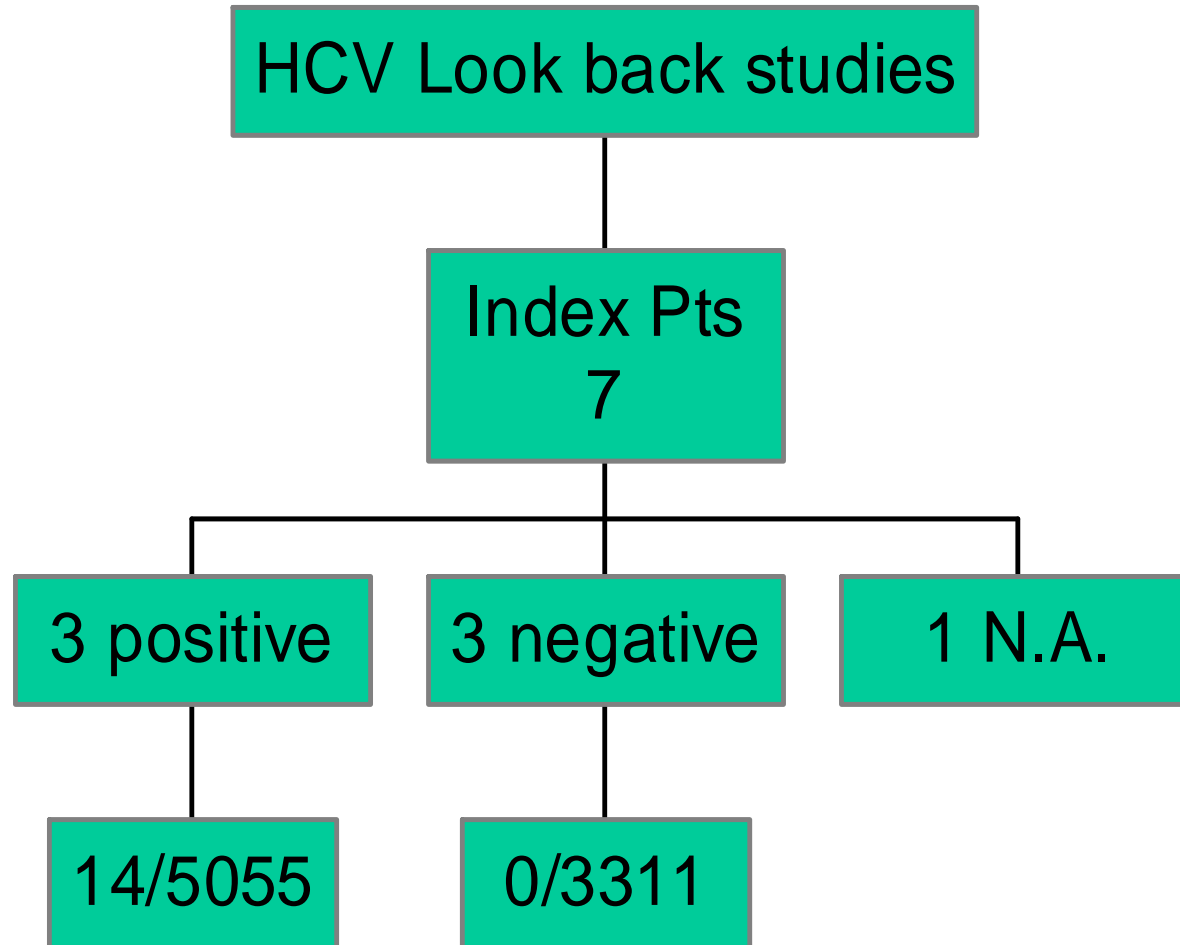
Index Pts

7

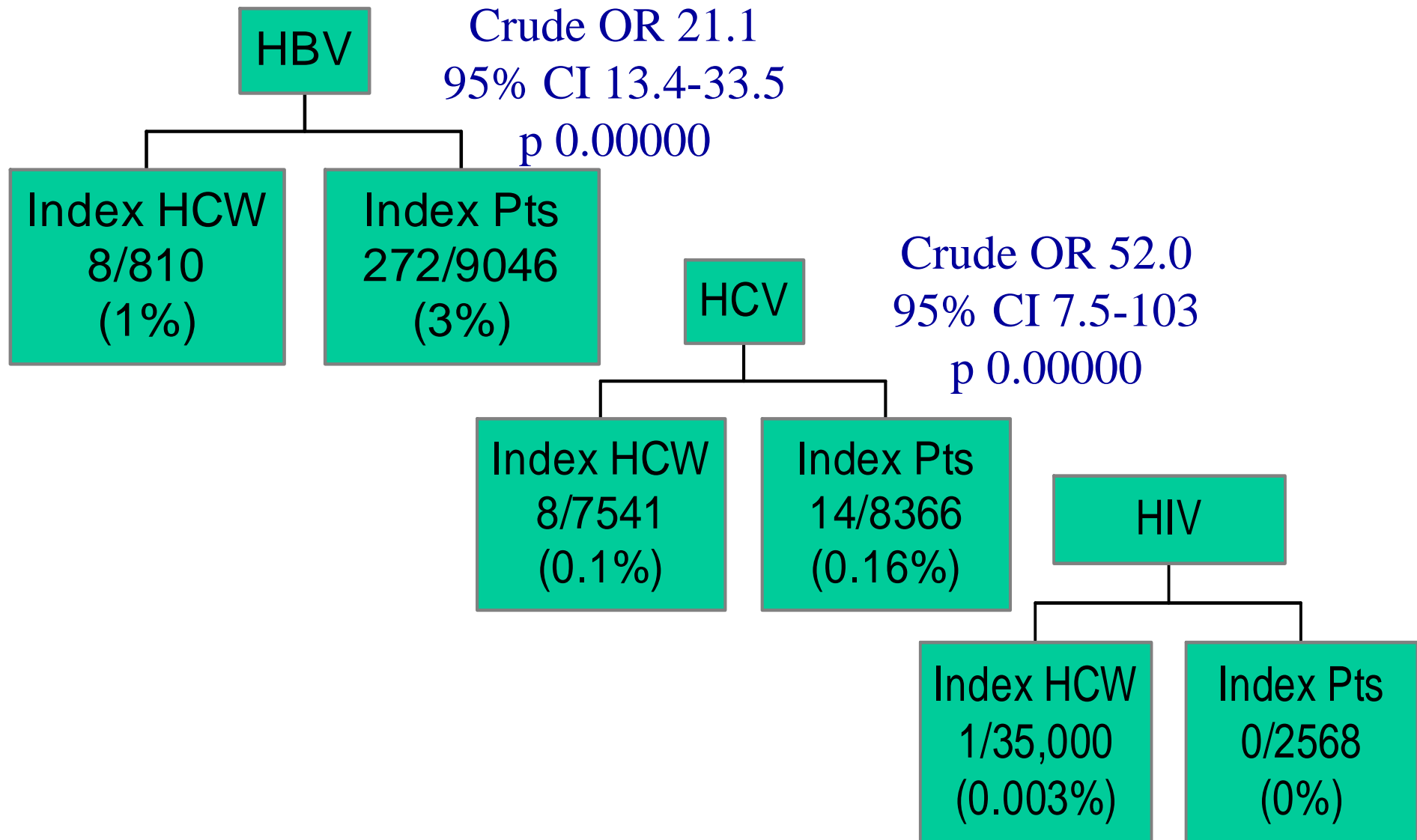
HCW-to patient HCV transmission



HCW-to patient HCV transmission



HCW-to patient B-B transmission Look-back studies



HCW-to patient B-B transmission Look-back studies

HBV

Index HCW
8/810
(1%)

Index Pts
272/9046
(3%)

Crude OR 0.3
95% CI 0.15-0.67
p 0.001

HCV

Index HCW
8/7541
(0.1%)

Index Pts
14/8366
(0.16%)

Crude OR 0.6
95% CI 0.24-1.61
p 0.4

LOOKBACK studies

Complicated: time and resource consuming

- ✓ **Define the period: when the HCW was infected, how far back**
- ✓ **Define at risk population: which cases should be included**
- ✓ **Trace cases: medical records, theatre registers, etc**
- ✓ **Contact cases: GP, letter, help line, etc**
- ✓ **Test consenting patients:**
- ✓ **Allocate resources: cost and personnel**
- ✓ **Manage media**
- ✓ **etc. etc**

What can we do?

Two phase look-back exercise – CDRw Feb 3, 2005

2003 index case: HCV infected gyn/obst

Look-back exercise

The most recent 500 women were contacted, 432 tested, no HCV +

One patient who was outside the restricted number, referred to the hospital because of HCV infection that was assessed as acquired from the HCW

Second phase started on Jan 2005: extended to all the 2350 Pts who underwent EPP and for whom the addresses were available

Discussion

Main objectives of a screening program for infectious diseases are

- to identify persons unaware to be infected
- to reduce further transmission

Prerequisite

- feasibility
- availability of effective treatment
- availability of preventive measures

Cost effectiveness

- evaluated in terms of QALY spared
- compared with other public health interventions

Discussion

Further objectives related to occupational medicine are:

- to protect the ill workers from other occupational hazards that could worsen their underlying illness
- protecting patients from any possible hazards

Council Directive 89/391/EEC on the introduction of measures to encourage improvements in the safety and health of workers at work - of 12 June 1989

Directive 2000/54/EC of the European Parliament and of the Council on the protection of workers from risks related to exposure to biological agents at work - 18 September 2000

Conclusions

Mandatory/compulsory HBV vaccination should be implemented since medical schools

It is time to reconsider a wider use of HCV and HIV voluntary screening for HCW, including post-exposure and regular, scheduled testing