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# HIV and HCV screening in a safe drug use facility : the Geneva experience.

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*Bienne, 1<sup>er</sup> décembre 2011*

# Disclosure

- 120 Oraquick HIV and HCV tests offered by Hygis company
  - HCV tests out-of-date end of june 2011
  - HIV tests out-of-date end december 2011
- No retribution to researchers or participants
- No conditions on use of results imposed by Hygis

# Context

- Actualised data on HIV/HCV prevalence in active DU are lacking

# Quai 9, safe use facility, Geneva



# Research questions

- **Primary objectives:**
  - Assess HIV and HCV prevalence in active DU
  - Assess acceptability and feasibility of screening in oral fluid in a safe use facility
- **Secondary objectives**
  - Compare HIV/HCV prevalence in injectors versus non injectors
  - Compare self-reported and tested prevalences

# Methods

- Cross-sectional study (June 17<sup>th</sup> - 27<sup>th</sup> 2011)
- Ethical committee approval
- Consecutive people were invited to participate at the moment they were getting out of the safe use room
- Exclusion: refusal, already included
- Questionnaire (5 questions)
- Rapid Oraquick tests
  - HIV
  - HCV

# Tests

- OraQuick HCV<sup>®</sup>, rapid antibody test et OraQuick advance HIV-1/2 rapid antibody tests<sup>®</sup>, OraSure technologies inc.

**Table 2**  
Sensitivities and specificities of the OraQuick<sup>®</sup> HCV Rapid Antibody Test in each specimen type.

Matrix	Sensitivity <sup>a</sup>		Specificity <sup>a</sup>	
	TP	Proportion (95% CI <sup>b</sup> )	TN	Proportion (95% CI <sup>b</sup> )
Serum	756/757	99.9% (99.3%, 100.0%)	1422/1423	99.9% (99.6%, 100.0%)
Plasma	755/756	99.9% (99.3%, 100.0%)	1420/1422	99.9% (99.5%, 100.0%)
Venipuncture	753/755	99.7% (99.9%, 100.0%)	1421/1423	99.9% (99.5%, 100.0%)
Fingerstick	752/754	99.7% (99.0%, 100.0%)	1421/1422	99.9% (99.6%, 100.0%)
Oral fluid	739/753	98.1% (96.9%, 99.0%)	1418/1423	99.6% (99.2%, 99.9%)

Abbreviations: TP, true positive; TN, true negative; CI, confidence interval.

<sup>a</sup> Sensitivity and specificity are calculated based on the HCV-infected or not HCV-infected samples with valid OraQuick<sup>®</sup> Rapid HCV antibody test result.

<sup>b</sup> The two-sided 95% exact CI of sensitivity calculated using the exact method (Clopper–Pearson) by PROC FREQ with options BINOMIAL, EXACT, and ALPHA=0.05.

Lee et al. Journal of  
Virological Methods  
172 (2011) 27–31

**Sensitivity**  
**Serum: 99.9%**  
**OF: 98.1%**



**Specificity**  
**Serum: 99.9 %**  
**OF: 99.6 %**

# What if new infection discovered?

- Insurance, physician: referred to physician
- Insurance, no physician: referred to specialised service
- No insurance: referred to free medical service for non insured persons for confirmation test and staging
- Free HIV treatment and insurance paid by special ground
- HCV treatment for uninsured people: almost impossible



# Population description

- 111 persons were included
-  84%  16%
- Age (average) 36 years
- IV 52%      Inh 29%      Sniff 19%
- IV lifetime: 80%      never 19.8%
- **OST 69%**

# HIV

- 93% had previously been screened
- prevalence: 3,6%
- 100% concordance with self-reported data
- All current injectors

# Hepatitis C

- Previous screening 86%
- Self reported results:
  - + 58%
  - 41%
  - ? 1%

# Study HCV Results

- HCV +            61 personnes
- HCV -            50 personnes
  
- **Overall HCV prevalence 55%**

# Injectors

- 75.8% of current injectors are HCV+
- 31.4% of life time injectors are HCV+

# Smokers (n=32)

- **HCV +** 9 (28%)
- All of them had injected at least once
  
- **HCV -** 23 (71.8%)
- 17 of them had never have injected

# Sniff (n=21)

- **HCV +** 8 (38%)  
100% have injected at least once
- **HCV -** 13 (62%)  
8 lifetime injectors (61.5%)  
5 never injected (38.5%)

# Newly discovered HCV infections

- 55 persons said to have negative or unknown HCV serology
- 7 of them tested HCV positive : **12.5%**



# 7 new HCV infections

- 6 are current injectors, 1 injected in the past
- **3 reported unsafe injections (syringe exchange)**
- 1 injector reported sex with an HCV+ partner
- 1 reported no risks
- 2 did not answer the questions on risk behaviour

# HCV negatives Reported Risks (50)

- 2 reported shared crack pipes or sniffing material
- 1 reported shared injection preparation material (spoon)
- None reported syringe or needle sharing

# Problems

- 4 known **false negative tests**
- 2 with very bad dental health (dental prosthesis or 1 left tooth)
  - Tests were positive when repeated
- **2 tested negative twice** (test and control)
  - Both are RNA negative
  - Both with low AB (9 and 10)
- 1 false neg, neg viral load. *Lee et al. Journal of Virological Methods 172 (2011) 27–31*

# HCV and Social status

- **HCV +:** 10 DU have no insurance neither in Switzerland nor in Europe
- **4/7** of the newly discovered HCV infected persons have no insurance

# Follow up

2 / 7 did the confirmation tests and RNA

Even relayed to a free medical service,  
uninsured people did not (yet) have a  
confirmation test

# Limitations

- Small sample
- No solid data on acceptability
- Difficulty to be completely random
- Sensitivity of the HCV test

# Conclusion

- Oral testing was well accepted and easy to use in this setting (False negatives seem related to poor dental status and low antibodies)
- In our sample
  - HCV prevalence is still over 50%
  - HIV prevalence < 5%
- Major risk factor : injection
- Knowledge of positive screening result is excellent

# Conclusions 2

- **Major problem: HCV**
- Even in Switzerland, where HCV screening is accessible and reimbursed in health care settings, it might be useful to consider screening in alternative (eg harm reduction) settings in order to facilitate access to adequate HCV care and treatment



## Conclusion 3

- Investigate possibility to do confirmation tests, RNA , liver tests, even fibroscan, at the safe use facility
- Investigate ways to increase HCV treatment uptake, even in migrants without insurance
- Start HCV treatment **in safe use facilities ?**