

Incidence and Prevalence of Hepatitis C in Austria – with focus on IDUs

Study Outcomes and First Steps to Improve the Data

Irene Schmutterer/Martin Busch
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Background

Although there are many **different sources of data** where HCV infections are documented, HCV incidence and prevalence within the total population have to be **estimated** based on data that is **not very reliable**.

HCV incidence in Austria = ????
HCV prevalence in Austria = ???

source of
data 1

source of
data 2

source of
data 3

source
of data 4

source
of data 5

Different expert estimations in the media

In Österreich sind rund **20.000** Menschen mit Hepatitis C infiziert. Seit einigen Jahren ist diese Viruserkrankung zu nahezu 100 Prozent heilbar. Doch rund 20 bis 25 Prozent der Erkrankten bekommen keine Therapie, kritisieren Ärzte.

orf.at (published 07.06.2017)

In Europa leben Schätzungen zufolge zwischen zwei und fünf Millionen HCV-positive Menschen. Für Österreich nimmt man an, dass rund **30000-45000** Menschen, also etwa 0,3 – 0,5% der Bevölkerung, infiziert sind. In bestimmten Risikogruppen (in erster Linie Personen mit akutem oder vergangenem intravenösen Drogengebrauch) ist die Rate jedoch wesentlich höher.

netdoktor.at (accessed 08.06.2017)

Hepatitis C ist ein Massenleiden: Weltweit sind 180 Millionen Menschen davon betroffen. In Österreich gibt es rund **80.000** Infizierte, manifest wurde die Erkrankung bei **30.000**.

profil.at (published 02.12.2014)

Insgesamt gibt es in Österreich rund **120.000** Hepatitis C-Infizierte. Die Krankheit verläuft zumeist chronisch, bis zu den Langzeitfolgen vergehen Jahre bis Jahrzehnte. Um eine

derStandard.at (published 10.08.2015)

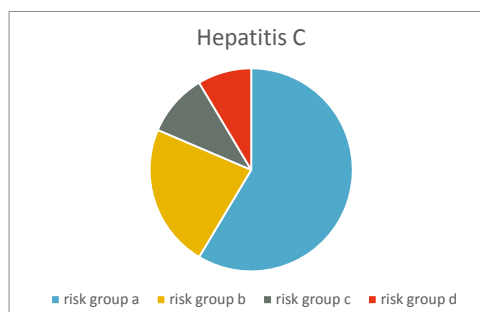
Risk groups

Besides this only little is known about **potential risk groups**, their size and incidence and prevalence rates within this groups.

risk group a:
incidence = ?
prevalence = ?

risk group b:
incidence = ?
prevalence = ?

...



Aim of the study

The aim of the study was to

analyse and describe the available data bases, as sources for prevalence and incidence estimation

and to improve the estimations founded on these sources.



Selected Outcomes

The data bases we analysed have different advantages and limitations. They vary in size and population (total population vs. subgroups).

Present estimates of HCV incidence (new diagnosed cases) and HCV prevalence are not satisfyingly reliable at the moment.

Different data bases

Data base	Periode of time	n HCV data
1 Electronic register of notifiable infectious diseases (diagnosed cases)	01/2009 – 12/2014	6685
2 Action Hepatitis C data base	01/2004 – 12/2012	6583
3 Hospital statistics (stationary patients)	01/2002 – 12/2014	about 30.000 chronic HCV
4 Austrian HIV Cohort Study (AHIVCOS)	01/2005 – 06/2013	833
5 Drug addiction treatment facilities	01/2000 – 12/2014	2646
6 Statistics of drug related deaths	01/2009 – 01/2014	156
7 DOKLI (patient documentation in addiction treatment facilities)	01/2006 – 12/2014	1296
8 Data from HCV treatment centres (about 30)		150-1000/centre
9 Statistics on causes of death	01/2002-12/2014	3053
10 Data from prisons	since 2013	about 7% HCV RNA pos. (about 9% OST)

Leading mode of transmission changed from blood transfusions to i.v. drug use

Source: Action Hepatitis C data base

Assumed mode of transmission (multiple answers possible, n = 6219 patients, median age = 44y.)			
	Total	Age ≤ median	Age > median
Drugs	34%	57%	12%
Blood products	16%	9%	23%
Plasma donation	4%	1%	5%
Piercing/tattoo	3%	4%	2%
Others	3%	3%	3%
Answer refused	12%	8%	17%
Unknown	32%	22%	40%

More men than woman infected in Austria

What the existing data suggest is that there are more men than woman infected with HCV in Austria (60:40).

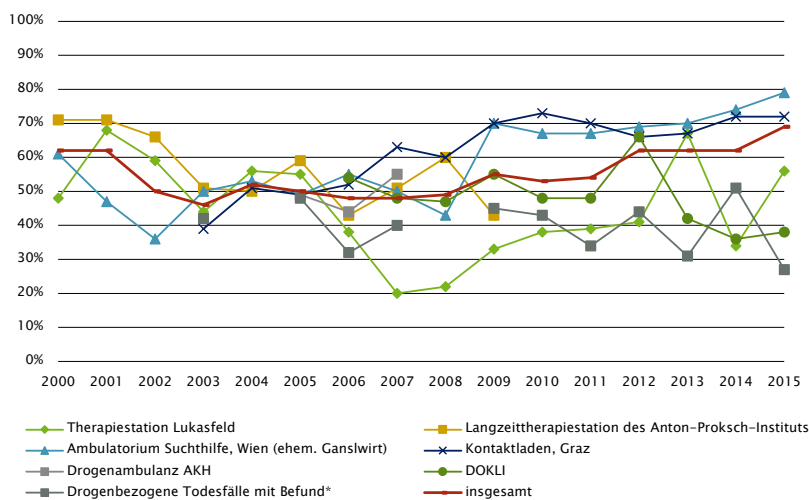
70:30 in the group of i.v. drug users

source of data	male	female
Action Hepatitis C data base	62%	38%
Hospital statistics: stationary patients with diagnoses of acut and/or chronic HCV (2005-2013)	60%	40%
Statistics of drug related deaths: HCV-ab pos. (2009-2014, n=156)	81%	19%
Statistics on patients from 3 drug addiction treatment facilities: HCV-ab pos. (2008-2014, n=1239)	67%	33%
DOKLI: i.v. HCV-ab pos. (2011-2014, n=240)	69%	31%
Statistics on causes of death: chronic HCV (2002-2014)	48%	52%

More men than woman infected in Austria

This could be explained by the proportion of male vs. female i.v. drug users (70:30) and the assumption that the transmission route “intravenously consumption of drugs” plays a major role for HCV infections in Austria.

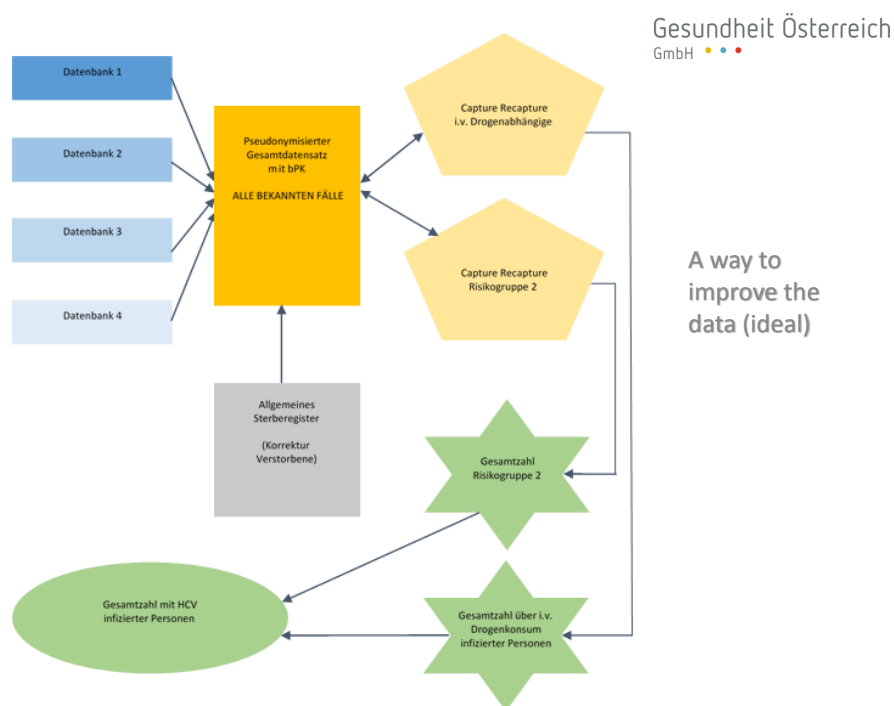
Proportion of HCV-ab pos. in the group of PWID



Conclusions (ideal)

To improve the estimates on HCV incidence and prevalence we suggested to enter existing data from different sources into a **pseudo-anonymised register** using an area-specific personalised health identifier and to match the cases with the general death register.

In order to estimate the number of unreported and/or undiagnosed cases the authors suggest to use a **capture-recapture approach** based on overlaps in screening samples of different risk groups.



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One Step to Improve the Data – IDUs

2017/2018 – match 2 registers:

Electronic register of notifiable infectious diseases (new diagnosed cases)

and

Electronic register that contains people on OST as well as people that were caught by the police because of opioids

Problem: both registers don't contain all cases, but

- see how many of new diagnosed cases are people who consume opioids
- see how many people who consume opioids have been registered with a HCV diagnose

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Thank you for your attention!

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Contact

Irene Schmutterer

Stubenring 6

1010 Vienna, Austria

T: +43 1 515 61-208

F: +43 1 513 84 72

E: irene.schmutterer@goeg.at

www.goeg.at

