

Risk profile of patients diagnosed with a sexually transmitted infection : a comparison of patients consulting general practices (SGP) and specialised sexual health clinics (SHC) in Belgium, 2013-2014

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Background

Assuming that STI patients visiting specialized sexual health centers (SHC) and general practitioners (GP) have different risk profiles triggered STI surveillance by GP. The aim was to compare patients characteristics and to explore the contribution of the different health care settings to STI control.

Methods

STI surveillance exists since 2000 by voluntary participation of gynecologists, dermatologists, the low threshold medical centers for sex workers (SW), STI clinics, and AIDS reference centers (ARC), collecting socio-demographic, testing and behavioral data. They are defined as SHC. In order to compare STI patients consulting GP and SHC, the GP sentinel network was invited to participate STI surveillance in 2013 and 2014. Two-sample proportion test was used to test for significant differences.

Results

GP (N=160) and SHC (N=21) reported respectively 439 and 1899 STI episodes from respectively 412 and 1695 patients. STI patients did not differ in gender, age and education (table 1), as well as for STI-coinfection and reinfection (table 2).

	SGP network		SHC network		p-value
	N=412		N=1695		
	n/N	% (95% CI)	n/N	% (95% CI)	
Gender (male)	201/374	54 (48-59)	986/1682	54 (52-56)	ns
Age (mean)					
Men	34	(33-35)	34	(32-36)	ns
Women	27	(26-29)	26	(25-27)	ns
educational level					
No education	3/285	1 (0-2)	13/837	2 (1-3)	ns
Primary & Secondary school	67/285	24 (19-29)	199/837	24 (21-27)	ns
Technical & vocational	91/285	32 (27-37)	157/837	19 (16-22)	<0.001
school					
High school & university	124/285	44 (38-50)	468/837	56 (53-59)	0.001
Ethnicity					
Belgium	318/395	78 (74-82)	1030/1646	63 (61-65)	< 0.001
Non-Belgium	77/395	8 (5-11)	616/1646	19 (17-21)	< 0.001
Non-European country	46/395	9 (6-12)	301/1646	18 (16-20)	< 0.001
European country	31/395	8 (5-11)	315/1646	19 (17-21)	< 0.001
ns = not significant					
Missing :					
Gender: SGP n= 30 (7%), SHC n=13 (1%); age: SGP n=1 (0.2%), SHC n=0 (0%); educational level: SGP n=127 (33%), SHC n=858 (52%); ethnicity: SGP n=17 (4%), SHC n=49 (3%)					

	SGP network		SHC network		p-value
	N=412		N=1695		
	n/N	% (95% CI)	n/N	% (95% CI)	
Reason for consultation	406/412	99%	1584/1695	93%	ns
STI complaint	257/406	63 (58-68)	669/1584	42 (40-44)	< 0.001
Screening	80/406	20 (16-24)	600/1584	38 (36-40)	0.001
Other than STI reason	20/406	5 (3-7)	141/1584	9 (8-10)	0.01
Prenatal screening	7/406	2 (1-3)	44/1584	3 (2-4)	ns
Partner with STI	42/406	10 (7-13)	130/1584	8 (7-9)	ns
STI symptoms	412/412	100%	1695/1695	100%	
No symptoms	152/412	37 (32-42)	983/1695	58 (56-60)	< 0.001
Symptoms					
Urethritis	111/412	27 (22-31)	246/1695	15 (13-17)	<0.001
Proctitis	5/412	1 (0-2)	98/1695	6 (5-7)	<0.001
Cervicitis	38/412	9 (6-12)	90/1695	5 (4-6)	0.02
Genital ulcer	24/412	6 (4-8)	87/1695	5 (4-6)	ns
Other	82/412	20 (16-24)	119/1695	11 (10-12)	<0.001
STI diagnoses	n=439	100%	n=1899	100%	
Annual mean number of STI by patient	1,06		1,12		
Chlamydia	204/439	46 (41-50)	981/1899	52 (50-54)	0.01
Gonorrhoea	80/439	18 (14-22)	383/1899	20 (18-22)	ns
Syphilis	42/439	10 (7-13)	280/1899	15 (13-17)	0.01
Genital warts	87/439	20 (16-24)	95/1899	5 (4-6)	<0.001
Other	26/439	6 (4-8)	160/1899	8 (7-9)	ns
Coinfection	31/412	8 (5-11)	178/1695	11 (10-12)	ns
Reinfection	51/439	12 (9-15)	229/1899	12 (11-13)	ns
HIV serologic status	239/412	58%	1367/1695	81%	
Positive	12/239	5 (2-8)	391/1367	29 (27-31)	<0.001
ns = not significant					
Missing:					
Reason for consultation: SGP n=6 (1%), SHC n=11 (7%); STI symptoms: SGP n=0 (0%), SHC n=0 (0%); STI diagnoses: SGP n=0 (0%), SHC n=0 (0%); coinfection: SGP n=0 (0%), SHC n=0 (0%); reinfection: SGP n=0 (0%), SHC n=0 (0%); HIV serologic status: SGP n=173 (42%), SHC n=328 (19%)					

GP patients consulted more because of a STI complaints (GP:63%; SHC:42%), while the SHC performed more screening (GP: 20%, SHC:38%). GP diagnosed more genital warts (GP:20%; SHC:5%) but slightly less Chlamydia (GP:46%; SHC:52%) and syphilis (GP:10%; SHC:15%) than the SHC. (Table 2) The SHC patients mentioned more multipartnership (GP:40%; SHC:74%) and used more condoms (GP:19%; SHC:45%). The proportion of MSM and SW was higher in SHC (resp. GP:29%, SHC:68%; GP:1%, SHC:16%). (Table 3) The proportion of MSM by STI, with exception of genital warts, was always higher in SHC and was strongest for syphilis (GP:52%, SHC:92%).(Table 4)

	SGP network		SHC network		p-value
	N=412		N=1695		
	n/N	% (95% CI)	n/N	% (95% CI)	
≥2 sex partners last 6 months	95/236	40 (34-46)	350/475	74(70-78)	< 0.001
Condom use in general	58/298	19 (15-23)	502/1106	45 (42-48)	<0.001
No fix relationship	147/339	43 (38-48)	424/1189	36 (33-39)	0.01
Sexual preference					
MSM	56/191	29 (23-35)	662/872	68 (65-73)	< 0.001
FSF	1/173	<1 (0-1)	11/351	2 (1-3)	ns
CSW	4/292	1 (0-2)	171/1079	16 (14-18)	< 0.001
Sexual contact with CSW	15/275	5 (2-8)	51/888	6 (4-8)	ns
PWID	1/333	<1 (0-0)	21/1054	2 (1-3)	0.01
Sexual contact with PWID	4/246	2 (0-4)	19/792	2 (1-3)	ns
Probable place of contamination					
Abroad	28/377	7 (5-10)	105/1243	8 (6-10)	ns
MSM: men having sex by men; FSF: women having sex by women; SW: sex worker; PWID: people who inject drugs					
ns = not significant					
Missing:					
≥2 sex partners last 6 months: SGP n=166 (42%), SHC n=1229 (72%); no fix relationship: SGP n=73 (18%), SHC n=506 (30%); condom use in general: SGP n=114 (28%), SHC n=589 (35%); sexual preference: SGP n= 22 (5%), SHC n=45 (3%); CSW: SGP n=120 (29%), SHC n=616 (36%); sexual contact with CSW: SGP n=137 (31%), SHC n=807 (48%); PWID: SGP n=79 (19%), SHC n=629 (37%); sexual contact with PWID: SGP n=166 (40%), SHC n=905 (52%); place of contamination: SGP n=35 (9%), SHC n=452(27%)					

	SGP network		SHC network		p-value
	n/N	% (95%CI)	n/N	% (95%CI)	
<25 years old					
All registered STI patients	144/411	35 (30-40)	530/1695	31 (29-33)	ns
Chlamydia	98/200	49 (42-56)	64/380	43 (38-48)	ns
Gonorrhoea	22/79	27 (17-37)	28/277	17 (13-21)	ns
Syphilis	4/42	10 (9-19)	28/277	10 (6-14)	ns
Genital warts	24/82	30 (20-40)	24/95	25 (16-34)	ns
MSM	n/N	%	n/N	%	
All registered male STI patients	56/191	29 (23-35)	662/972	84 (82-86)	<0.001
Chlamydia	7/75	9 (3-15)	178/390	46 (41-51)	<0.001
Gonorrhoea	30/53	57 (44-70)	274/316	87 (83-91)	<0.001
Syphilis	16/31	52 (34-70)	249/268	92 (89-95)	<0.001
Genital warts	7/40	18 (6-30)	7/46	15(5-25)	ns
MSM: men having sex with men					
ns = not significant					
Missing for Age: SGP n=1 (<1%, Chlamydia patient)					
Missing for MSM:					
For chlamydia :SGP n=4/79 (5%), SHC n=7/397 (2%); gonorrhoea: SGP n=3/56 (5%), SHC n=5/321(2%); syphilis:SGP n=5/36 (14%), SHC n=4/272 (1.5%); genital warts: SGP n=4/44 (9%), SHC n=0/46 (0%)					

Conclusions:

STI patients were comparable for age and gender in the 2 types of health care settings. GP screened less for STI and diagnosis was made in case of a particular complaint. High risk groups (MSM, SW) were more seen in SHC than in the GP network because they were mainly diagnosed by ARC, STI clinics and medical centers for sex workers. The probable lower risk profile of GP patients could be dedicated to lower STI knowledge and risk awareness, by as well the GP and the patient not belonging to a known risk group.

Therefore, it is recommended to continue the low-threshold sexual health counseling and consultation by the ARC, STI clinics and FP clinics.

It is also recommended to train GP 's in STI consulting, in opportunistic screening with risk factor awareness and to strengthen condom use in general.

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