COMMUNICABLE DISEASE REPORT

Quarterly Report

Volume 29, Number 3 September 2012

Sexually Transmitted and Bloodborne Infections

Reporting

All laboratory –confirmed sexually transmitted and bloodborne infections (STBBIs) are to be reported to the Regional Medical Officer of Health (RMOH) or designate responsible for appropriate investigation, treatment, case follow up and provincial reporting.

Reportable STBBIs in Newfoundland and Labrador

Chancroid	Hepatitis B Virus (HBV)	Lymphogranuloma venereum (LGV)
Chlamydia	Hepatitis C Virus (HCV)	Syphilis, all categories
Gonorrhea	HIV	

For a complete list of reportable diseases in Newfoundland and Labrador, please visit http://www.health.gov.nl.ca/health/publichealth/dcd/listabc20.pdf

Table 1: Ten Year STBBI Case Counts

Infection	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012*
Chlamydia	518	605	790	629	552	510	597	535	644	689	707
Gonorrhea	9	7	1	1	8	18	14	10	12	26	13
Syphillis, all categories	0	2	0	2	3	8	13	8	14	10	11
HIV	1	11	8	9	7	0	3	6	5	3	3
Hepatitis B Virus	9	17	24	29	13	26	28	24	23	28	10
Hepatitis C Virus	36	59	72	82	95	94	101	85	62	62	51

*As of November 1, 2012

Newfoundland & Labrador Public Health Laboratory (PHL)
Chlamydia trachomatis and *Neisseria gonorrhoeae* screening recommendations

Submitted by Dr. Lourens Robberts

Culture for *Chlamydia trachomatis* and *Neisseria gonorrhoea* has limited utility for routine diagnosis due to the requirement for specialized cell culture methods for *C. trachomatis* (CT) and due to short term viability of *N. gonorrhoea* (NG) outside the host. For these reasons nucleic acid amplification testing (NAAT) is considered the gold standard for screening and diagnosis of CT and NG. The PHL employs a multiplex PCR for detection of both CT and NG from a single specimen submitted (Cobas® CT/NG).

Recommendations:

- NAAT is recommended for the detection of reproductive tract infections caused by CT and NG infections in both symptomatic and asymptomatic men and woman.
- Urine is the preferred specimen type for testing males. First void (first catch) urine is the specimen of choice as midstream urine tends to be sterile.
- Vaginal swabs are equal or superior to endocervical swabs or urine when using NAAT for detection of CT and NG in woman. Vaginal swabs are the preferred sample type for screening.
- NAAT has superior performance to culture for the detection of rectal and pharyngeal infections caused by CT and NG. However, these specimen types have not been cleared by Health Canada for use with NAAT. Due to the superiority of NAAT over culture, the PHL encourages rectal and pharyngeal swabs (utilizing the Cobas® PCR Female Swab Collection Kit) in both men and woman who present with symptoms consistent with infections at these sites. In addition, it is recommended to identify rectal and/or pharyngeal infections in those individuals with relevant exposure/risk factors.

Interpretation of NAAT testing

C. trachomatis DNA

DETECTED: indicates the presence of *Chlamydia trachomatis* DNA. This assay is not intended as a test of cure as non-viable CT may be detected when performed < 3 weeks after completion of therapy. In cases of treatment failure Chlamydia culture should be attempted.

NOT DETECTED: absence of *Chlamydia trachomatis* DNA.

INDETERMINATE: the specimen submitted contained substances inhibitory to the assay. Please recollect a specimen to complete follow up.

N. gonorrhoeae

DETECTED: indicates the presence of *N. gonorrhoeae* DNA. This assay is not intended as a test of cure as non-viable NG may be detected when performed < 3 weeks after completion of therapy. In cases of treatment failure N. gonorrhoeae culture should be attempted.

NOT DETECTED: absence of *N. gonorrhoeae* DNA.
INDETERMINATE: the specimen submitted contained substances inhibitory to the assay. Please recollect a specimen to complete follow up.

ANTIMICROBIAL RESISTANCE TESTING FOR N. GONORRHOEAE
The utilization of NAAT on urine specimens is an improvement on, and is considered more acceptable for patients, than urethral swabs. However, due to the inability to isolate NG by culture from the Cobas® PCR urine/swab collection devices (formulated to inactivate viable organisms and stabilize DNA) NG cannot be cultured from these specimens. There is concern for the emergence of antimicrobial resistant NG, therefore the PHL is encouraging collection of a second specimen specifically for isolating viable NG in order to perform antimicrobial susceptibility testing.

Recommendation

- In patients with clinically suspected NG infection (or at high risk for NG), a second specimen should be collected at the same time as the Cobas® PCR specimen. The second specimen should be collected using a urethral swab in Amies Charcoal transport medium. This swab should be sent with the Cobas® PCR specimen requesting *N. gonorrhoeae* culture. This specimen must be sent to the RHA microbiology laboratory **without delay** as organism viability decreases significantly with time.

- For patients with suspected treatment failure only a swab in Amies Charcoal medium should be submitted for *N. gonorrhoeae* culture, as NAAT is not indicated for test of cure/treatment failure.

Isolated *N. gonorrhoeae* will be subjected to antimicrobial susceptibility testing.

Please visit www.publichealthlab.ca for an up-to-date guide to services.

Innovative Approach to Contact Tracing
Submitted by Karen Williams & Sylvia Doody

The Sexually Transmitted Infection (STI) rate has always been a priority for Sheshatshiu Public Health. Unfortunately, despite past efforts the STI rates continued to climb. In 2010, Sheshatshiu Public Health decided change was needed in order to decrease the STI rates and promote healthy sexual behavior.

Sheshatshiu Public Health had three meetings with Labrador Grenfell Health Communicable Disease Control Nurse and the Charge Nurse of the Mani Ashini Clinic in 2010-2012. Main topics of discussion were policy and procedure, as well as establishing a good working relationship and communication with providers of education and treatment. A STI policy was developed by Sheshatshiu Public Health for the community of Sheshatshiu. This policy outlined appropriate procedures to follow upon notification of an index case. These procedures were adapted to meet the needs of the community.

Sheshatshiu Public Health in collaboration with Labrador Grenfell Health Mani Ashini Clinic adheres to the following guidelines:

* CDCN notifies Public Health of index case
* Public Health Nurse informs Regional RN (plus laboratory results)
* Regional RN treats positive STI
* Education provided by PHN
* PHN or Regional RN obtains contacts
* Contacts notified to come in for testing & treatment
* Contacts of the index contacts are obtained, sealed, & kept confidential until testing results are positive/negative. If contact negative, contact tracing destroyed. If contact positive, contact tracing completed.

This process seems to aid in completing the cycle of STI exposure. Due to the difficulty of locating persons (transient population) and having them attend the clinic, this procedure limits the amount of times that a person has to come forward and decreases the amount of time the RN/PHN spends trying to locate people. When possible, we try to utilize one Regional RN as the STI testing/treatment person, this helps to maintain consistency & the continuity of care.

STI health promotion and education have been carried out in a variety of arenas and in various forms. Besides the individual education provided to the index case and contacts, STI health promotion has been incorporated into the community. Displays and booths have been established at various community events such as the Health Fairs at the Mani Ashini Clinic and the Social Health Conference held in Sheshatshiu in June 2011. Public Health takes advantage of all community events as a forum for STI education. Sexual Health education has been provided to the school, Treatment Centre, Family Resource Centre, and the Women's Centre. Sexual health has been incorporated into the prenatal education sessions. Sheshatshiu Public Health supplies the Mani Ashini Clinic with condoms for the communities of Sheshatshiu and North West River.

Sheshatshiu Public Health works closely with Healing Our Nations HIV/AIDS, Aboriginal Youth Sexual Health Network, and the Labrador Friendship Centre HIV/AIDS Labrador Project.

Sheshatshiu Public Health is proud to announce the September 2012 hiring of a Community Sexual Health Representative. This person provides STI peer/group counseling/education, radio announcements, community displays & presentations, distributes condoms, and is establishing a Facebook page for health promotion & education.

Eastern Health Investigates Epidemiologically Linked Syphilis Cases

Submitted by Karen Colbourne and Andrea Doyle

Syphilis is a sexually transmitted infection that is passed from person to person through anal, vaginal or oral sex and is caused by the bacteria *Treponema pallidum*. An infected pregnant woman can also pass along the infection to her unborn child. Rates of congenital syphilis have risen in Canada after recent outbreaks of infectious syphilis. Syphilis can be cured with antibiotics but can cause long-term complications and/or death if not adequately treated.

The overall reported rate of infectious syphilis in Canada has increased by 782.1% since 2000. The incidence of infection is highest among males aged 25-39; in females, the largest number of cases reported is among those between 20 and 29 years of age. Over the past decade,

multiple outbreaks have been reported across the country among both the men who have sex with men (MSM) and heterosexual populations (Public Health Agency of Canada, Report on Sexually Transmitted Infections in Canada: 2009).

Eastern Health has been investigating a cluster of 5 laboratory confirmed syphilis cases that were diagnosed during 2012. These cases all are epidemiologically linked to each other and to a cluster of four syphilis cases that occurred in the region in 2011. One additional case of confirmed syphilis epidemiologically linked to the syphilis cluster of 2011 has recently been identified but is not associated with the most recent 5 cases. All cases to date have reported having sex with only males (MSM). One 2011 case may have been infected out of Province.

All but one of the cases tested negative for other STIs (HIV, Gonorrhoea, Chlamydia) as well as Hepatitis B and C. It is unusual for 6 cases of Syphilis to be identified in a five month period (June – October 2012).

For comparison, the five year average for 2006-2011 was 2 cases of infectious syphilis per year and 5 cases of non-infectious syphilis per year:
http://www.health.gov.nl.ca/health/publichealth/cdc/mdr/2011YearEndSummary.pdf

As of October, 2012, the investigation into this cluster is ongoing and CDCN nurses at Eastern Health are currently in the process of following up with all identified contacts.

Influenza Management

Every year, influenza spreads across the province, from person to person, family to family, and community to community. The severity of flu illness can vary from mild to severe. Severe complications of influenza include hospitalization and death. Getting your influenza vaccine is more convenient than ever. The influenza vaccine is available from your regional health authorities and your family doctor. Please visit the regional health authorities' website for clinic times and places.

For more information about influenza management and available resources please visit the provincial website under Infection Prevention & Control:

http://www.health.gov.nl.ca/health/publichealth/cdc/infoforpros_edu.html

"Don't sit on the sidelines this year- get the flu shot not the flu "

Newfoundland and Labrador Communicable Disease Surveillance
Monthly Disease Report: September 2012

DISEASE CLASS	DISEASE NAME	TOTAL			EASTERN			CENTRAL			WESTERN			LABRADOR GRENFELL		
		Sept	YTD 12	YTD 11	Sept	YTD 12	YTD 11	Sept	YTD 12	YTD 11	Sept	YTD 12	YTD 11	Sept	YTD 12	YTD 11
Enteric, Food and Waterborne	Amoebiasis	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Botulism	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Campylobacteriosis	**3**	**30**	**45**	**2**	**15**	**31**	**1**	**5**	**8**	0	**10**	**6**	0	0	0
	Cryptosporidiosis	**1**	**5**	**1**	0	0	0	0	0	0	**1**	**4**	**1**	0	**1**	0
	Cyclosporiasis	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Cytomegalovirus	**1**	**4**	**4**	**1**	**2**	0	0	**1**	**1**	0	**1**	**2**	0	0	**1**
	Giardiasis	**4**	**25**	**38**	**2**	**3**	**9**	0	**2**	**4**	**2**	**19**	**18**	0	**1**	**7**
	Hepatitis A	0	0	**1**	0	0	0	0	0	0	0	0	0	0	0	**1**
	Listeriosis	0	**1**	0	0	**1**	0	0	0	0	0	0	0	0	0	0
	Norovirus Infection	0	**94**	**52**	0	**18**	**16**	0	**9**	**33**	0	**50**	**3**	0	**17**	0
	Salmonellosis	**1**	**61**	**56**	**1**	**31**	**27**	0	**12**	**11**	0	**7**	**11**	0	**11**	**7**
	Shigellosis	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Typhoid/Paratyphoid Fever	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Verotoxigenic Escherichia coli	**1**	**1**	**4**	**1**	**1**	**3**	0	0	**1**	0	0	0	0	0	0
	Yersiniosis	0	**1**	0	0	0	0	0	0	0	0	**1**	0	0	0	0
Diseases Transmitted by Direct Contact and Respiratory Route	Creutzfeldt-Jakob Disease (CJD)	0	0	**3**	0	0	**1**	0	0	**1**	0	0	**1**	0	0	0
	Group B Streptococcal Disease of Newborn	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Influenza Virus of a Novel Strain	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Influenza A, Laboratory Confirmed	0	**115**	**207**	0	**24**	**110**	0	**37**	**25**	0	**9**	**42**	0	**45**	**30**
	Influenza B, Laboratory Confirmed	0	**208**	**43**	0	**81**	**25**	0	**34**	**16**	0	**51**	0	0	**42**	**2**
	Invasive Group A Streptococcal Disease	0	**3**	**1**	0	**1**	0	0	**2**	0	0	0	1	0	0	0
	Invasive Haemophilus Influenza non-type B	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Invasive Meningococcal Disease (IMD), Conf	0	0	**1**	0	0	0	0	0	1	0	0	0	0	0	0
	Invasive Meningococcal Disease (IMD), Prob	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Invasive Pneumococcal Disease (IPD)	0	**14**	**12**	0	**6**	**8**	0	**2**	**2**	0	**5**	**2**	0	**1**	0
	Legionellosis	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Meningitis, Bacterial (other than Hib, IMD or IPD)	0	**2**	**2**	0	0	**2**	0	0	0	0	**1**	0	0	**1**	0
	Meningitis, Viral	**1**	**1**	**4**	**1**	**1**	**4**	0	0	0	0	0	0	0	0	0
	Nontuberculosis Mycobacterial Disease	0	**6**	**8**	0	**6**	**5**	0	0	**1**	0	0	**1**	0	0	**1**
	Severe Respiratory Illness, unknown origin	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Tuberculosis, non-respiratory	0	0	**1**	0	0	0	0	0	0	0	0	0	0	0	**1**

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		Sept	YTD 12	YTD 11	Sept	YTD 12	YTD 11	Sept	YTD 12	YTD 11	Sept	YTD 12	YTD 11	Sept	YTD 12	YTD 11
	Tuberculosis, respiratory	0	2	6	0	0	2	0	0	0	0	1	0	0	1	4
Sexually Transmitted and Bloodborne Pathogens	Chlamydia	63	657	483	41	368	260	1	45	44	12	90	40	9	154	139
	Gonorrhoea	2	12	16	2	4	2	0	1	0	0	0	0	0	7	14
	Hepatitis C	4	47	49	2	37	32	0	2	3	2	8	13	0	0	1
	HIV Infection	0	3	2	0	2	1	0	1	0	0	0	1	0	0	0
	Syphilis, infectious	1	6	4	1	5	4	0	1	0	0	0	0	0	0	0
	Syphilis, non-infectious	1	3	4	1	3	4	0	0	0	0	0	0	0	0	0
Vectorborne & Other Zoonotic Diseases	Lyme disease	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Malaria	1	2	2	1	2	2	0	0	0	0	0	0	0	0	0
	Q Fever	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Rabies	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Toxoplasmosis	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Trichinellosis	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	West Nile Virus Infection	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Vaccine Preventable	Chickenpox	8	350	191	0	75	77	5	170	18	2	97	92	1	8	4
	Congenital Rubella Syndrome	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Hepatitis B	0	9	22	0	8	14	0	0	4	0	1	2	0	0	2
	Invasive Haemophilus Influenza type B (Hib)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Measles	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Mumps	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Pertussis	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Rubella	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Tetanus	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Source: Communicalble Disease Control System, Department of Health and Community Services, Government of Newfoundland and Labrador

Date verified: 17-Oct-2012

Disclaimer: Data are subject to continuous updates; small variations in numbers may occur.

Note: Prior to January 2011, "Invasive Meningococcal Disease, Probable" was included under the heading "Invasive Meningococcal Disease"