EPI NORTH

The Northwest Territories Epidemiology Newsletter

September/October 1996 Vol. 8, Issue 5

In This Issue

Northwest Territories Health and Social Services

Editor's Note:

Here it is...September...and time for another issue.

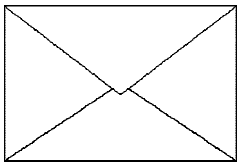
This issue highlights **Adult Immunizations,** particularly seasonal vaccine programs: **Influenza and Pneumococcal** immunizations. So, before you launch into your fall immunization programs, check out these items on pages two to five.

Our **cancer feature** addresses cervical screening in the NWT and was compiled by Cynthia Carr, epidemiology consultant for the GNWT-Health and Social Services. Our next issue will continue discussion on other aspects of cervical screening.

Chief Medical Health Officer, Dr. Ian Gilchrist discusses the situation with **Canada's blood supply** and offers readers an opportunity to submit comments regarding the practices of the NWT.

Reportable Diseases in the NWT examines a case of brucellosis which was reported to the Health Protection Unit in August as well as an outbreak of coxsackie virus in Holman.

The rest of the issue is "jam-packed" with all sorts of information. So, read on...



We hope to include a readership survey in our next issue. As always, your comments and questions are welcome. Also we welcome ***your*** article submissions or requests.

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Adult Immunizations:

"Immunization remains one of the most cost-efficient preventative interventions for public health."

A strong association exists in the public's and many health professionals' mind linking immunization to infancy and childhood. This perception continues to act as a significant stumbling block on the road to more successful adult immunization programs. The advice and input of physicians and other health care practitioners is important to overcome this problem.

Immunization remains one of the most cost-efficient preventative interventions for public health. Its relative importance for communicable disease prevention and control will continue to grow in an era of increasing international travel and emerging antibiotic-resistant strains of pathogenic microorganisms. The strategic usefulness of immunization applies during all stages of life.

Tetanus and Diptheria

Emphasis should first be placed on ensuring maintainance of immunity against Tetanus and Diphtheria, for which boosters of **Td** toxoids are required every 10 years. Widespread abandonment of such practices, following the collapse of the former Soviet Union, has led to a sustained outbreak of Diphtheria in Russia which has continued to gain strength over the past 2 years.

Routine Immunization of Adults[1]

Vaccine/Toxoid	Indication	Further doses
Diphtheria (adult preparation)	All adults	Every 10 years; preferably with Tetanus toxoid(Td)
Tetanus	All adults	Every 10 yrs (Td)
Influenza	Adults ≥65 years; adults ≤65 years at high risk of influenza-related complications	Every year using current preparation
Pneumococcal	Adults ≥65 years; conditions with increased risk of pneumococcal diseases	None usually (see "Pneumovax" section to right)
Measles	All adults born in 1957 or later who are susceptible to measles	Preferably given as MMR (see page 73 of the Canadian Immunization Guide)
Rubella	Susceptible women of childbearing age and certain male healthcare workers	None (preferable given as MR or MMR)
Mumps	Adults born in 1957 or later with no history of mumps	None

Influenza

On our own continent, **Influenza** remains a significant cause of morbidity and mortality during outbreak periods. At such times, hospitalisations for all respiratory diseases as well as for congestive heart failure rise markedly, generating significant stress and costs to the health care system. There has been mounting evidence that the "Flu" vaccine can benefit almost everyone: beside reducing need for hospitalisation in elderly people, annual flu vaccination's outcomes include children in daycare ending up with less otitis media and healthy adults having fewer episodes of upper respiratory illnesses and missed work days[2]. For these reasons, while priority must be given and free immunization provided only to defined high-risk groups (see the next article), access to this vaccine should not be denied to others who want it, when supply is not an issue. For maximum efficacy, it is suggested to conduct influenza vaccine campaigns later in the fall (mid October to November) to achieve peak immunity levels at the time of increased influenza activity in the winter months.

Pneumovax

There is also a need to promote increased use of the **pneumococcal vaccine** (Pneumovax 23®). Pneumococcal infections account for 30 to 50% of admissions for community-acquired pneumonia. A number of studies have already demonstrated cost-effectiveness of immunization against Pneumococcus[3,4], yet there are many people in defined high-risk groups who have still not be offered this vaccine. For most individuals, a single dose will provide life-long protection with aggregate efficacy of at least 60 to 80%.[5] The exceptions are patients with nephrotic syndrome or who are asplenic, for whom boosters every 5 to 7 years may be required. The target groups for influenza and pneumococcal vaccine overlap considerably. The concurrent administration of the two vaccines at different sites does not increase the risk of side effects.

Measles, Mumps & Rubella

Adults born since 1957 should have their immune status against Measles and Mumps reviewed. Those who have no documentation of immunization or serological evidence of previous infection should be offered **MMR.** Similarly, women of childbearing age who have no detectable antibodies or no documentation of having received immunization in the past should be given Rubella vaccine, preferably in the form of MMR.

A Time to Think !

Dr. Andre Corriveau
Territorial Epidemiologist
Health Protection Unit
GNWT - H&SS

Hepatitis A & B Vaccines

Recommended to receive **Hepatitis A** vaccine are:

- some patients with Hemophilia
- recipients of frequent blood products
- those travelling to developing countries.

Hepatitis B vaccination should be offered to those at increased risk of exposure to Hepatitis B through:

- occupation
- lifestyle
- environment

Immunizing Travellers

Finally, travelers may have very specific needs with regard to immunization, and these should reviewed on an individual basis with the regional Medical Health Officer or with staff at a specialized travel clinic. The following table[1] indicates some of the more common travel vaccines as well as other adult immunizations, recommended according to risk.

Summary of Selected Immunization for Adults

Vaccine	Indication
BCG	High-risk exposure
Hepatitis B	Occupational, life-style or environmental exposure
Japanese encephalitis	Travel to endemic area or other exposure risk
Meningococcal	High-risk exposure
Pertussis	Not indicated
Plague	High-risk exposure
Poliomyelitis	Travel to endemic area or other exposure risk
Rabies Pre-exposure use	Occupational or other risk
Typhoid	High-risk exposure
Yellow Fever	Travel to endemic area or if require for foreign travel

Strategies for Adult Immunization

Strategies for reaching adults must necessarily differ from those used in immunization programs aimed at infants or school-age children. Greater flexibility for delivery points is usually required. Collaboration and information sharing between Public Health staff and the clinical sector is critical for acheiving greater coverage of the adult population. Opportunity must be taken at each encounter with the health care system, during hospitalization or outpatient clinic appointments, to review immunization needs of patients, and in some cases for meeting these needs on the spot when dealing with otherwise hard to reach clients. Networking with large employers and providing access at the workplace is often a most effective approach.

Immunization is a life long concern. Let's think about it and work to share this information more effectively with everyone around us!

"Opportunity must be taken at each encounter with the health care system...to review immunization needs of patients ...when dealing with otherwise hard to reach clients."

References:

[1] ***Canada Immunization Guide*** (4th ed.) (1993). National Advisory Committe on Immnization, CMA/Health Canada.

[2] Pantell, RH. Glu Vaccine: *Something for Nearly Everyone*. Journal Watch 1996; 16 (1):6.

[3] Gable CB, Holzer SS, Engelhart L, et al. Pneumoccal Vaccine: Efficacy and Associated Cost Savings. J Am Med Assoc 1990; 264(22); 2910-2915.

[4] Sisk JE, Riegelman RK. Cost Effectiveness of Vaccination Against Pneumoccoal Pneumonia: An Update. Ann Intern Med 1986; 104(1): 79-89.

[5] Fedson DS. Influenza and Pneumococcal Vaccination of the Elderly: Newer Vaccines and Prospects for Clinical Benefits at the Margins. Preventive Medicine 1994; 23: 751-755.

Adult Pertussis a Common Cause of Persistent Cough

Pertussis is usually thought of as a disease of infancy, but epidemiological data indicate that there has been an increased incidence among adults. This study determined that the prevalence of pertussis in adults with a prolonged cough an estimated its incidence among adults in a defined urban population.

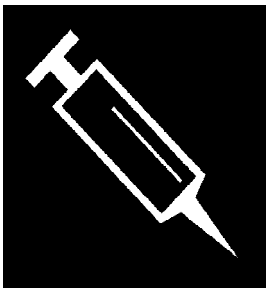
In a study which evaluated 153 adults who presented to the Kaiser Permanente San Fancisco Medical Centre with cough persisting for two weeks or longer. Antibody testing indicated evidence of pertussis infection in 12.4% of these patients. The patients reported visits to physicians as often as nine times for cough symptoms; some physicians had considered steroids in the treatment plan.

To estimate incidence, researchers abstract information from the medical charts of an additional 100 patients who were randomly sampled from 676 patients with an ambulatory diagnosis of cough. The incidence of adult pertussis was estimated to be 176 patients per 100,000 patient years.

Comment: Pertussis may be an overlooked yet important cause of persistent cough in adults.

"Pertussis may be an overlooked yet important cause of persistent cough in adults."

This summary was reprinted by permission of Journal Watch, from Vol. 16, Number 14. The study results were published as: Nennig ME; et al. Prevalence and incidence of adult pertussis in an urban population JAMA 1996 Jun 5; 275: 1672-4.



Influenza Vaccination for 1996-97

In Canada, two measures are available that can reduce the impact of influenza: immunoprophylaxis with inactivated (killed-virus) vaccine and chemoprophylaxis or therapy with an influenza-specific antiviral drug (amantadine). Vaccination of persons at high risk each year before the influenza season is currently the most effective measure for reducing the impact of influenza.

"Vaccination of persons at high risk each year before the influenza season is currently the most effective measure for reducing the impact of influenza."

Determining Influenza Vaccine Components

Influenza A viruses are classified into subtypes on the basis of two surface antigens. Immunity to these antigens reduces the likelihood of infection and lessens the severity of disease if infection occurs. Infection with a virus of one sybtype confers little or no protection against virus of other subtypes. Furthermore, over time, antigenic variation (antigenic drift) within a subtype may be so marked that infection or vaccination with one strain may not induce immunity to distantly related strains of the same subtype. Although influenza B viruses have shown more antigenic stability than influenza A viruses, antigenic variation does occur. For these reasons, major epidemics of respiratory disease caused by new variants of influenza continue to occur. The antigenic characteristics of current and emerging strains provide the basis for selecting the virus strains included in each year's vaccine.

1995/96 Influenza Season in Review

The 1995-96 influenza season was characterized by moderate activity that peaked in the early season (December) with a secondary peak around March 1, 1996. Laboratory-confirmed cases were ~95% influenza A, the vast majority being of the H_1N_1 subtype, and the remainder were influenza B.

"Protection... may last 6 months...thus, the preferred time for immunization of elderly individuals is November..."

The Influenza Vaccine for 1996/97

The antigenic components of the influenza vaccine have been updated for the 1996-97 season. The National Advisory Council for Immunizations (NACI) therefore recommends that the trivalent influenza vaccine for the 1996-97 season contain an A/Wuhan/359/95(H_3N_2)-like strain, an A/Texas/36/91 (H_1N_1)-like strain and a B/Beijing/184/93-like strain. NACI also revised recommendations for pregnant women, people infected with HIV, and healthy adults <65 years of age.

Influenza Vaccine Programs

Annual immunization is required because one or more of the vaccine components is changed each year. As well, immunity declines in the year following vaccination. Each 0.5 ml of vaccine will be available as either a whole-virus or a split-virus (chemically disrupted) preparation. Protection from the vaccine generally begins about 2 weeks after immunization and may last 6 months or longer. However, in the elderly, antibody levels fall below protective levels in 4 months or less.

Thus, the preferred time for immunization of elderly individuals is November.

Recommended Recipients:

People At Risk

- Adults and children with cardiopulmonary disorders
- People of any age who are residents of nursing homes and other chronic care facilities
- People ≥ 65 years of age
- Adults and children with chronic conditions, such as diabetes and other metabolic diseases, cancer, immunodeficiency, immunosuppresion, renal disease, anemia and hemoglobinopathy.
- Children and andolescents (age 6 months to 18 years) with conditions treated for long periods with acetylsalicylic acid.
- Persons infected with human immunodeficiency virus (HIV).

People Capable of Transmitting Influenza to Those at High Risk

- Health care workers andother personnel who have significant contact with people in the high-risk groups listed above.
- Household contacts (including children) of people at high risk who either cannot be vaccinated or may respond inadequately to vaccination.

Other People

- Others including travellers and those providing essential community services and for pregnant women in the high-risk groups listed above. The vaccine is considered safe for pregnant women, regardless of their stage of pregnancy.

Summary:

Finally, no opportunity should be missed to give vaccine to any individual at risk who has not been immunized during the current season.

Source:
Canadian Communicable Disease Report 15 Jun 96.

Health Protection Unit Recommendations

Subject: Administration of Seasonal Immunizations (Influenza & Pneumococcal Vaccines)

Purpose: **1) To protect children and adults from communicable diseases for which there are vaccines.**
2) To reduce/prevent morbidity/mortality associated with these communicable diseases.

Influenza Vaccine:

- **Influenza vaccine is given free of charge on an annual basis to the following risk groups:**

1) Adults 65 years of age or older.*

2) Adults and children with chronic cardiac or pulmonary disorders (including bronchopulmonary dysplasia, cystic fibrosis and asthma) severe enough to require regular medical follow-up).

3) Adults and children with chronic conditions such as diabtes and other metabolic diseases, cancer, immunodeficiency (including HIV infection), immunosuppression, renal disease, anemia and hemoglobinopathy.

- **Dosage:**

Injections of influenze vaccine are recommended to be given intramuscularly, preferably in the deltoid muscle or anterolateral thigh

AGE GROUP	VACCINE TYPE	DOSE	NO. OF DOSES
13 years and older	Whole virus or split virus	0.5 ml	1
9 - 12 years	Split - virus	0.5 ml	1
3 - 8 years	Split - virus	0.5 ml	1 or 2**
6 - 35 months	Split - virus	0.25 ml	1 or 2**

*** Lowered age may be predicated on regional factors. The recommendation of the Canadian Immunization Guide is for adults 65 years of age or older.**

**** Children under the age of 9 receiving influenza vaccine for the first time require 2 doses with an interval of 4 weeks.**

Pneumococcal Vaccine:

- **Pneumococcal vaccine should be given to ***:**

1) Adults 65 years of age or older.* (see above)

2) Adults with chronic conditions: cardiac, respiratory, renal disease, alcoholism, diabetes mellitus, chronic cerebrospinal leak, asplenia, and other conditions associated with immunosuppression.

3) Children 2 years of age or older with asplenia, splenic dysfunction, nephrotic syndrome, chronic cerebrospinal fluid leak, and other conditions associated with immunosuppression.

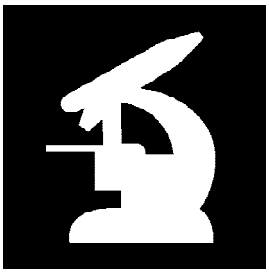
4) HIV positive individuals over the age of 2 years.

- **Dosage:**

Administer a single (0.5 ml) dose of pneumococcal vaccine (Pneumovax) IM, prefereable in the deltoid muscle or lateral midthigh.

***No boosters will be required with the exception of:patients with nephrotic syndrome or who are asplenic, for whom boosters every 6 years are recommended**

The target groups for influenza and pneumococcal vaccine overlap considerably. The concurrent administration of the two vaccines at different sites does not increase the risk of side effects.



Screening for Cervical Cancer:

"...on a world-wide basis... [cervical cancer] is the second most common and in developing countries it is the most common form of cancer affecting women..."

Cervical cancer is one of the most potentially serious diseases affecting women today; on a worldwide basis, it is the second most common and in developing countries it is the most common form of cancer affecting women. In Canada, cervical cancer is the fourth most common type of female cancer, with an estimated standardized incidence rate for 1995 of 7.8 per 100,000 females (1,300 new cases) and an estimated 370 deaths.[1] Cervical cancer is a concern to women of all ages. Although only 15.5% of cases of cervical cancer occur in women under 35, it is the most common cancer in this age group, accounting for 25% of all new cases.[2] In the Northwest Territories, of the twelve deaths reported due to invasive cervical cancer since 1980, five occurred in women aged 24 to 35.[3]

Invasive cervical cancer is a disease that can be prevented by early detection and treatment. Evidence indicates that cytologic screening has been instrumental in reducing incidence and mortality rates of invasive cervical cancer. The death rate from cancer of the cervix has decreased by 50 to 70% since the introduction of the Pap smear and cervical screening programmes.

Risk Factors For Development of Cervical Cancer (Table 1):

- **Women who have had multiple sexual partners or whose male sexual partners have had multiple partners.**
- **Women who began sexual intercourse at an early age.**
- **Women whose male sexual partners have had other sexual partners with cervical cancer.**
- **Women with current or prior human papillomavirus infection or condylomata or both**
- **Women with current or prior herpes simplex virus infections.**
- **Women who are infected with human immunodeficiency virus (HIV)**
- **Women with a history of other sexually transmitted diseases.**
- **Women who smoke**
- **Women who abuse alcohol or other substances**
- **Women who have a history of cervical dysplasia or cervical cancer or endometrial, vaginal, or vulvar cancer.**
- **Women of lower socioeconomic status.**

Based on the risk factors identified in Table 1, a large proportion of NWT residents are at high risk for cervical cancer. The fertility rate gives some indication of early age of intercourse and parity in the NWT. In 1992, there were 1,554 births; 903 of these births were to single mothers. The fertility rate in 1992 was 99.42 births/ 1,000 women aged 15-44.

Screening in the NWT

Although there is no NWT wide centralized screening program, there are screening programs within regions. In the five communities with hospitals and private physicians, there is no organized community based monitoring or recall for having women attend for Pap tests annually. In all other communities, there is some type of program to encourage women to attend for Pap tests. In most communities, Well-Women clinics (which include having a Pap test) are held weekly and women attend by appointment. However, between 1991 and 1994 there was no standardized program either across or within all regions. With the absence of standards, variations in screening frequency and regular monitoring may decrease the program effectiveness. In some communities, the onus is on the women to make an appointment to attend the clinic. In others, the practice is standardized with recall notices sent out by the Health Centres to remind women to attend Well-Women clinics.

Study of Screening Uptake and Results

Data obtained from the BC Cancer Agency was received to meet the following objectives:

1. To determine and describe the proportion of eligible women (aged 15 and over) in the Northwest Territories who have had at least one Pap test between 1991 and 1994 (inclusive).
2. To describe associations between screening rates and other factors such as age, ethnicity and service provider.
3. To describe the patterns of screening test results. Age and ethnic differences were also explored.

Summary results of objectives 1 and 2 will be discussed in this issue of Epi-North. The results relating to objective 3 will be presented in the next issue.

Crude Screening Rates

Between January 1, 1991 and December 31, 1994, 9,851 of the estimated 20,479 eligible women (at least fifteen years of age in the study period) had at least one Pap test. The crude screening rate over the four year period is 481 per 1000 women or 48.10% of the target population for organised cervical cancer screening (women aged 15 and over). The average annual screening rate is 120 per 1000 women or12.02% of the target population.

Screening Rates By Ethnicity & Age Group

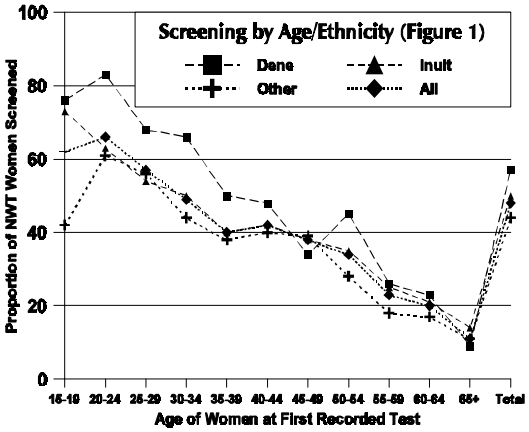
Screening rates among the ethnic groups differed. In the four year period 56.02% of Dene, 51.19% of Inuit and 43.43% of non-Aboriginal women at risk were tested. In relation to age, there is strong evidence of a linear trend in the proportion of women tested in relation to their ages (see Figure 1). Table 2 indicates percentage screened by region.

Screening Rates By Region (Table 2)

	Women Tested	Target Population	%tested
Baffin	1468	3735	39.3%
Inuvik	1203	3054	39.39%
Keewatin	1015	1920	52.86%
Kitikmeot	781	1456	53.64%
Fort Smith*	5384	10314	52.20%
NWT	**9851**	**20479**	**48.10%**

* Administrative Region

Why is Screening Important?



Frequency of Screening

Almost 1/3 of the women who were tested had at least one test in three out of the four years of the study period. Twenty percent of women tested had a test in each year of the study period. As Figure 2 illustrates, Inuit and Dene Women are tested most frequently. However, these results should be interpreted with some caution due to the mobile population of women in the "Other" category.

Screening Rates by Service Provider

9,341 women lived in communities with access to Health Centres and 11,138 women lived in communities with access to private physicians. Significant differences in proportions of women who had at least one test were found between service providers. Women with access to community health nurses had an odds ratio of attendance for at least one test of 1.35 over those serviced by physicians.

During the study period, 29, 231 test were taken for the 9,851 women aged 15 and over who were tested. This means that on average, each woman had approximately 3 tests in the four year period. The number of tests taken was associated both with ethnicity of the women and the service provider. Both Inuit and Dene women that accessed a community health nurse had more tests per person than did Inuit and Dene women who accessed a physician.

Discussion

In 1989, the National Workshop on Screening for Cancer of the Cervix[4] called for the "development and enhancement of organized cytology screening program" in all parts of Canada. Some of these recommendations are listed in Table 3.

To the extent that adequate information systems are available for recalling women in the target age groups and that the NWT has access to high quality laboratory services, routine annual screening of all women may no longer be a necessary practice.[5]

Recommendations for Cervical Screening (Table 3)

- **All women aged 18 and over who have had sexual intercourse should be encouraed to particpate in a cervical cytology screening program.**
- **Care should be taken to incorporate new programs within an overall conceptual and planning framework of care of well women**
- **The setting and manner of screening for cervical cancer should be sensitive, supportive and culturally appropriate**
- **Concepts of cervical cancer prevention and screening should be integrated with sex education for students and included in health promotion programs directed to all adolescents**
- **A second smear should, in general, be taken after 1 year, especially for women who begin screening after age 20.**
- **If the first two smears are satisfactory and show no significant epithelial abnormality, women should, in general, be advised to be rescreened every 3 years to age 69.**
- **Women over age 69 who have had at least two satisfactory smears and no significant epithelial abnormality in the last 9 years and who have never had biopsy-confirmed sever dysplasia or carcinoma in situ (cervical intrepithelial neoplasia [CIN] III) can be dropped from the cervical cytology screening program.**
- **The recommended frequency of rescreening for women aged 18 to 69 is approprate for all risk groups.**
- **Women entering a screening program at age 67 or older should have two satisfactory smears at least 6 months apart; those over age 69 can then be dropped from the program if the smears show no epithelial abnormality.**
- **The recommended screening frequencies apply to women whose smears show no epithelial abnormality. If abnormalities are detected, schedules for repeat examinations should be dictated by the requirements of surveillance, diagnosis, treatment and follow-up.**
- **Women do not need to be screened if they have never had sexual intercourse or have had a hysterectomy for benign conditions with adequate pathological documentation that the cervical epithelium has been totally removed and previous smears have been normal.**

The data presented above clearly indicate that significant proportion of women are still not being reached, particularly in the older age groups. At the same time, some groups who are getting overscreened. At a time when our resources are being strained, reallocating our energies to provide an adequate level of service to all at risk must remain our first concern. More analysis and discussion will follow in the next issue of EpiNorth.

"...[a] significant proportion of women are still not being reached..."

References:

[1] ***Canadian Cancer Statistics*** 1996, National Cancer Institute of Canada: Toronto.

[2] Austoker, J. (1994). ***Dept. of Public Health & Primary Care.*** Cancer prevention: Setting the Scene. BMJ: 1994 May 28: 308(6941), 1415-20.

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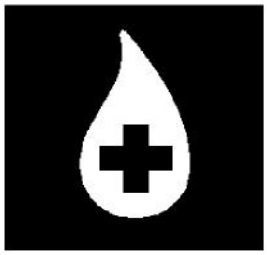


Good Blood?/Bad Blood?:

Blood (*edò* in Dogrib Dene, *sang* in French, *mikkow* in Cree, *aok* in Inuktitut) is a remarkable substance that keeps us all going.

Good Blood?

During the terrible European wars that went on for hundreds of years, some physicians began to question if they might save the lives of those who had been chopped up or shot, by getting blood back into them again. The first documented attempts to do this were made in the mid 1600's. Blood from animals was first utilized (because all blood looked to be the same). Later Lower, Denys and others, also used blood from humans. Sometimes these transfusions seemed to work. But frequently the patients died even more quickly than they might have without intervention.

"From the time transfusions were first tried in the 1600's, everyone knew that the results might be lifesaving but...could sometimes kill..."

Not until 1900 did Landsteiner, an Austrian doctor, begin to suspect that all creatures had different types of haemoglobin and even among humans there were several distinct types of blood.

This information became clear at a significant time. During World War II participating armies were able to save the lives of many of their soldiers who would certainly have died from loss of blood.

The Red Cross has been in the forefront of helping people hurt by war since 1859. It was founded by a compassionate Swiss man, Henri Dunant who was touched by what he had viewed on the battlefield of Solferino (Italy). Nearly thirty years later, the Red Cross began their work in Canada, during the Battle of Batoche(Saskatchewan) in 1885. Fifty years later, when blood transfusion capabilities were developed, the Red Cross was in the forefront with the use of this welcome new lifesaving technique.

Bad Blood?

But, clearly, from the time blood transfusions were first attempted, everyone knew that while the results might be lifesaving, this intervention could often kill the patients it was supposed to be helping.

Avoiding the earlier observed transfusion tragedies, Landsteiner's work, and that of others, opened a whole new door which led to countless lives being saved and allowed many more to be lived in good health.

But, unfortunately, some undesirable consequences remained. Transmission of infections like syphilis was linked to blood transfusions. These infections, however, were infrequent and could be treated, so they did not slow down the rapid pace of blood administration.

There was also some disquiet over post-transfusion jaundice that was noted in about 10% of people who had received blood. However, once again this did not seem to be too big of a problem, because most recipients appeared to recover. Few anticipated that many would go on to have chronic liver disease.

By the 1980's however, an ominous new cloud was on the horizon when it became clear that the newly discovered virus causing AIDS was being spread through blood and blood products, with fatal consequences.

Unfortunately, health systems are often not as alert or responsive to epidemiological information as they should be. Thus, by the time changes in practice were slowly made, several thousand Canadians had acquired an infection that could not be cured and, that in turn, they had innocently spread to many others.

In 1993, the Federal Government appointed Mr. Justice Horace Krever to investigate how this had been allowed to happen and to determine the safety of Canada's blood banks. In 1995, Justice Krever issued a preliminary report, with a final report expected to come out later in 1996. From the public hearings which have taken place, it is clear that compared with other countries, Canada has a blood supply system that has worked wonders in saving lives. But it also has flaws , costing some people their lives and others their health and safety.

A Bloody Challenge

In the British idiom, a "bloody problem" is one that is difficult and important. The use of blood in the Northwest Territories is just that.

a) Blood Use

On the positive side, early in the AIDS epidemic, the NWT prepared a handbook for health professionals, recommending that all persons who received blood transfusions between 1978 and 1985 (the period of greatest risk) be tested for HIV.

On the negative side is the results of a blood-use survey conducted in the NWT in 1994. This study revealed that in the period between 1978 to 1994, blood use was quite high, there were generally no guidelines or standards in use in NWT hospitals, and most hospitals were not able to track when or who had received blood.

By 1995 a second survey revealed few changes in practices or available information. Hospital were not utilizing informed consent, and no health region had any records on patients who were trans-

A Bloody Challenge!

F. Ian Gilchrist, MD, DPH
Chief Medical Health Officer, GNWT

fused while in southern referral hospitals. As a result, a Blood Use Protocol was developed by the Department of Health and Social Services and distributed to all hospitals.

b) Hepatitis C

Although the discovery of the Hepatitis B virus explained many of the cases of post-transfusion jaundice in the 1950's, it did not explain them all, or even a majority of them. Another virus, labelled C, was not found until 1989, but its role was becoming clearer, and more problematic, as the Krever Commission began to investigate. Because this virus is now known to be persistent and may eventually cause severe liver disease, Justice Krever drew special attention to it and to the large number of people infected with it through blood transfusions.

c) Viruses from Where?

One of the problems of examining the extent of viral spread that may have taken place through blood transfusions, is that all of these viruses (HIV, HBV, HCV) can also be spread in other ways, even long after they are first acquired. When someone with a blood transfusion history is found to have such a viral infection it is next-to-impossible to determine the source of the infection.

d) CJD (or Mad Cow Agent)

This agent of disease is not even a virus, but another tiny disease-causing particle called a prion. It has raised some of the most serious questions about blood transfusions even though no cases of CJD have been linked to a blood transfusion!

The dilemma is this. One of the ethical principles is "First, do no harm". Yet, it is possible to do harm by both sharing information and not sharing it.

Recently the Red Cross has advised health practitioners across Canada that some of the blood products they distributed had come from blood donors who were later found to have CJD. Should the people who received those blood products be notified about this? Remember that CJD has <u>never</u> been known to be spread through a blood transfusion. Will these people, who may be otherwise entirely well, then spend the rest of their lives worrying about whether they may someday develop and die from a terrible disease? Would the health practitioner then be doing more harm than good? But the other side of the problem would be, does not everyone have the right to know if something might have gotten into them through a transfusion, and do health professionals not have a duty to tell them?

Early in 1996 in the NWT the Chief Medical Health Officer advised that all Regions should work with their Medical Health Officer to establish a Blood Committee. This Committee should individually review each person who had received any blood or blood products that the Red Cross believed may have been contaminated by some infectious agent. The Committee would then have to wrestle with these very difficult questions.

Summary

- Blood saves lives and blood transfusions are largely safe and effective.
- However, there are small and serious risks from blood transfusions. These risks are getting smaller as new safety techniques are put in place, but they have not been reduced to zero.
- All doctors prescribing blood or blood products should do so only when absolutely necessary, and in appropriate amounts, according to established protocols.
- All patients should be fully informed about blood risks and give their consent before any product is administered.
- All Health and Hospital administrations should track blood use carefully for the full protection of their patients and institutions.
- All of us should seek to work for conditions that will minimize the need for blood transfusions (accident prevention, good general health, etc.).

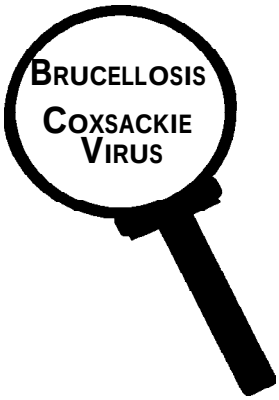
"All patients should be fully informed about blood risks and give their consent before any product is administered"

But What Do <u>YOU</u> Think?

Your thoughts about the use of blood (and blood product) transfusions in the Northwest Territories, and about how, when and what to pass on to patients about their real or possible exposures to blood-borne pathogens would be very much appreciated. Please jot them down and return them to us at the following address:

Dr. F. I. Gilchrist
Chief Medical Health Officer
Department of Health and Social Services
P.O. Box 1320, Centre Square Tower
YELLOWKNIFE NT X1A 2L9

We will in turn share them with the Regional administrations and Blood Committees. Many thanks.



Reportable Diseases in the NWT:

A Case of Brucellosis

In late June, a 32 year old male from Iqaluit presented with an eight day history of fever, severe headache, fatigue, epigastric pain with inspiration and anorexia. He was nauseated and had vomitted once, no episodes of diarrhea. On examination, his temperature was 39.7° C, he was tachycardic and experiencing mild epigastric tenderness. He was admitted to the hospital for observation. An ultrasound showed no abnormalities other than a mildly enlarged spleen. His fever continued to spike, with no indication of cause. Blood cultures were drawn. A diagnosis of trichinosis was ruled out (eosinophils of 0). A monospot was negative. History indicated he had consumed caribou recently. Blood cultures later indicated Brucella species.

Brucellosis in the NWT

1995 - 1 (Baffin)

1994 - 1 (Kitikmeot)

1993 - 7 (Baffin:4
Kitikmeot:1
Keewatin:2)

1992 - 7 (Baffin:2
Kitikmeot:5)

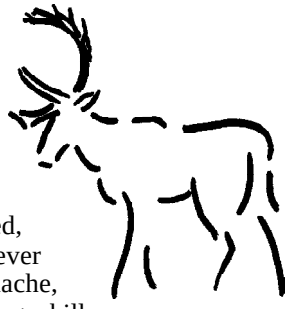
1991 - 2 (Kitikmeot)

1990 - 11 (Baffin: 6
Keewatin:1
Kitikmeot:3
Mackenzie: 1)

1989 - 1 (Baffin)

The pamphlet "Brucellosis in Caribou" was developed by the GNWT- Dept. of Renewable Resources. Copies can be obtained by calling the Wildlife Management Division at: 873-7411

What is Brucellosis?



Beneson(1995) defines brucellosis as a systemic bacterial disease with acute or incidious onset, characterized by continued, intermittent or irregular fever of variable duration, headache, weakness, profuse sweating, chills, arthralgia, depression and generalized aching. Localized suppurative infections may occur; subclinical and unrecognized infections are frequent. This disease may last for several days, months, or occasionally for a year or more. Diagnosis is often delayed due to vague symptomatology.

Infectious agent: Brucella species are small, non-motile, gram negative coccabacilli. Species which infect humans and are found in the NWT are generally *B. abortus* and *B. suis*.

Occurence: Worldwide; sources of infection and responsible organism varies according to geographic area.

Reservoir: In the NWT: caribou, reindeer, wolves, foxes, bears, dogs *(B. suis)* and cattle or bison *(B. abortus).*

Mode of Transmission: By contact with tissues, blood, urine, vaginal secretions, aborted fetuses and especially placentas, by injestion of raw mild and dary products of infected animals.

Incubation period: Highly variable. Usually 5-60 days; commonly 1-2 months.

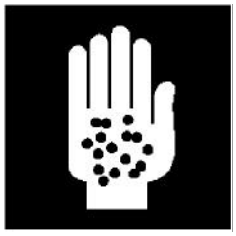
Period of communicability: No evidence of person-to-person communicability.

Treatment: Tetracycline for 4-6 weeks. Relapses may occur if treatment regime/ period is not appropriate.

Signs of brucellosis in caribou: Bacteria is most often found in the animal's reproductive organs and leg joints. Signs include swollen joints, limping, swollen glands or pus-filled swellings under the skin, in meat or in organs such as liver, swollen testicles or womb, abortions or early birth of weak/ dead calves. **But, a caribou that is infected with brucellosis may not always show visual signs of disease.**

Prevention: Be careful when butchering caribou. If disease is suspected:
- wear gloves
- do not touch diseased parts
- do not cut into swollen joints, testicles or tissue
- wash hands with soap and water after handling the animal
- boil knife and other equipment after butchering
- thoroughly cook all meat from a caribou
- do not eat smoked, dried or raw meat from disease caribou
- do not feed diseased parts to dogs.

Hand, Foot and Mouth Disease in Holman



In mid-August, the Health Protection Unit received a report from the Holman Health Centre that several infants and toddlers were presenting with stomatitis accompanied by rash on the hands and feet. In total 24 children developed symptoms of stomatitis, with or without accompanying rash to hands and feet. An additional 80 children developed conjunctivitis over the same two week time period. The coxsackie virus is thought to have been the causative factor.

What is Coxsackie Virus?

The coxsackieviruses, which are members of the enterovirus group or the family *Picornaviridae*, are the causal agents of a group of diseases which includes: enteroviral vesicular pharyngitis, enteroviral vesicular stomatitis with exanthem and enteroviral lymphonodular pharyngitis. This virus can also be responsible for causing epidemic myalgia, epidemic hemorrhagic conjunctivitis, meningitis and coxsackievirus carditis.

Vesicular stomatitis with exanthem (hand, foot and mouth disease) differs from vesicular pharyngitis in that oral lesions are more diffuse and may occur

Brucellosis and Coxsackie Virus

Lona Heinzig, RN BSN
Communicable Disease Analyst
Health Protection Unit

Coxsackie virus (cont)...

on the buccal surfaces of the cheeks and gums and on the side of the tongue. Papulovesicular lesions, which may persist from 7 to 10 days, also occur commonly as an exanthem, especially on the palms, fingers and soles; occasionally maculopapular lesions appear on the buttocks. Although usually self-limited, rare cases in infants have been fatal.

Stomatitis due to herpes simplex virus requires differientiation; it has larger, deeper, more painful ulcerative lesions, commonly located in the front of the mouth,

Occurence: Worldwide; greatest incidence is in summer and early autumn; occurs mainly in children under 10 years. Outbreaks frequently occur among among groups of children (eg. in nursery schools, childcare centres).

Mode of tranmission: Direct contact with nose and throat discharge and feces of infected people (who may be asymptomatic) and by aerosol droplet spread; no reliable evidence of spread by insects, water, food or sewage.

Incubation period: Usually 3-5 days

Period of communicability: During the acute stage of illness and perhaps longer since these viruses persist in stool for several weeks.

Preventive measures: Reduce person-to-person contact , where practicable, by measures such as crowd reduction and ventilation. Promote handwashing and other hygienic measures in the home.

References: Beneson, A.S. (ed). (1995) Control of Communicable Disease in Man (16th ed) . American Public Health Association.

Drugs Past Their Expiration Date

This article was reprinted by special permission of the publisher of the Medical Letter. It originally appeared in Vol. 38 (Issue 979) on July 19, 1996.

Physicians and pharmacists are often asked if patients can use drugs after their expiration date. Pharmaceutical companies, because of legal restrictions and liability concerns, will not sanction such use and may not even comment on the safety or effectiveness of using their products beyond the date on the label.

The Expiration Date:

The expiration date on the manufacturer's package is based on the stability of the drug in its original closed container. The date does not necessarily mean that the drug was found to be unstable after a longer period; it means only that real-time data or extrapolations from accelerated degradation studies indicate that the drug will still be stable at that date. The expiration date for new drugs is usually two years from the date of manufacture. As real-time data on stability accumulate, the expiration date many be extended to as much as five years from the date of manufacture. Once the container is opened for use or dispensing, the expiration date on the container no longer applies. Retail pharmacists who dispense drugs from the original container usually label them with an expiration date one year from the time of sale.

Stability:

Without knowing the conditions, the shelf life of drugs is difficult to predict. Medical Letter consultants estimate that most tablets or capsules stored under reasonable conditions in unopened containers retain at least 70% to 80% of their potency for 10 years or more. Even after the container has been opened, most tablets or capsules stored in relatively low humidity probably retain 70 to 80% of their potency for at least one to two years after the expiration date. Exceptions include nitroglycerin and paraldehyde, which lose potency within hours after exposure to light and air. Storage in high humidity may interfere with the dissolution characteristics of some oral formulations. Carbamazepine tablets (Tegretol, and others), for example, when stored under humid conditions have failed to dissolve and have been associated with clinical failure.

Safety:

The only report of human toxicity that may have been caused by chemical or physical degradation of a pharmaceutical product is renal tubular damage that was associated with use of degraded tetracycline (GW Frimpter et al, JAMA, 184:111, 1963).

Conclusion:

Outdated drugs are unlikely to be harmful. How much their potency they retain varies with the drug and the storage conditions, especially humidity. Although published data are not available, Medical Letter consultants believe that most drugs stored under reasonable conditions retain at least 70% to 80% of their potency for at least one to two years after the expiration date even after the container has been opened.

Site-Seeing (on the "Net")

Next time you feel like doing some "site-seeing", consider pitching your tent at this informative site.

Destination: ***http://www.cdc.gov/cdc.html***

Where are we? The Centres for Disease Control and Prevention (CDC) in Atlanta, Georgia WWW home page

What's there?

About CDC. What is it? Departments that make up the CDC

What's New. Calendar of events, conference info, announcements.

Health information. Diseases, health risks, prevention guidelines & strategies.

Travelers' Health. Summary of health info for international travel.

Publications & Products. Listing of publications, products & subscription services.

Data & Statistics. Updates on scientific data, surveillance & health stats.

Training & Employment. Listing of new opportunities.

Funding. Listing of funding opportunities.

Where does it link to?

(1) MMWR: The Morbidity & Mortality Weekly Report

(2) EID: Emerging Infectious Diseases Journal

(3) Other sites: Other CDC web sites, other health agencies such as WHO, Department of Health

Special Attraction: Travelers' Health

This page highlights **reference material on international travel** including vaccine recommendations and food/ water precautions. **Geographic health recommendations** lists regions to choose and then breaks down each region by country and by disease, risk and prevention. Other sections include areas of **disease out breaks** and **additional information** on diseases such as malaria, tuberculosis and yellow fever, to name a few.

Overall rating: This site has numerous areas of interest that are full of information, not just on diseases, but on employment opportunities as well. It is easy to navigate within the site and carries links to other great sites as well.

Any roadblocks? The biggest roadblock was wanting to grab my backpack and catch a plane to somewhere exotic.... (after being properly immunized of course!!)

Editors' Note:
The telephone number for Yellowknife was incorrectly printed in the July edition (Vol.8 No. 4). We apologize for any confusion which may have resulted.

Listings for HIV/AIDS Information Lines

1. Nunavut AIDS Information Line (Eastern Arctic)

1-800-661-0795 In Iqaluit: 979-0520
(403 & 819 exchanges, *effective June 11, 1996)*

Hours of Operation: 7 - 11:00 p.m.

2. Help Line & AIDS Information Line (Western Arctic)

1-800-661-0844 In Yellowknife: 920-2121
Hours of Operation: 7 - 11:00 p.m.
(effective June 1, 1996)

Note:

- **The 403 exchange includes the Kitikmeot region, western NWT, Yukon, northern British Columbia and northern Alberta.**
- **The 819 exchange includes the Keewating and Baffin regions and northern Quebec.**

The Health Protection Unit Mailbox

The Health Protection Unit (HPU) Mailbox is a new "feature" this month. In each issue, we will be highlighting one or two questions which come to our office. If you have a question regarding communicable diseases, let us know and we'll try to address it. We'll also keep you up-to-date with conferences and campaigns, etc...

Q: Can a pregnant woman be Mantoux tested?

A: Pregnancy is not a contraindication to Mantoux testing. Tuberculin skin testing (Mantoux) is done using a purified protein derivative (PPD) that contains an antigen obtained from a human strain of Mycobacterium tuberculosis. PPD is then heat treated and grown on a protein-free synthetic medium (Connaught Laborotories). When injected intradermally it illicits a cellular response, not a systemic response, therefore it is safe to use in all individuals. "There is no evidence that the tuberculin skin test has adverse effects on the pregnant mother or fetus. (Freidman, 1994, pg 174).

Tuberculosis (TB) can have severe adverse effects on both mother and baby. It can be passed from the mother to the fetus via the placenta or postnatally by airborn inoculation. It is very important to determine the TB status of any pregnant women who is in contact with TB or is suspected to have TB. In the Northwest Territories in the last five years, six cases of TB have been identified during or shortly after pregnancy. It is vital for the health of the mother and the baby to identify or prevent possible TB infection through early recognition. A TB skin test is a safe and valuable tool to aid in the identification of persons who have had exposure to TB.

Have *YOU* heard about the...

Canadian National Immunization Poster Competition

For: Grade 6 students

Theme: Immunizing For Health

Deadline: October 31, 1996

More information will be coming through your local school boards.

Please provide support through education sessions to this target group.

Prizes include: A trip to Ottawa for the Immunization conference, personal computer, mountain bike, computer software and much more. *****There will be one winner from each province and territory.*****

Sponsored by: Health Canada, the Canadian Pediatric Society, Canadian Public Health Association, Canadian Institute for Child Health and Connaught.

Questions???

Contact:

Wanda White

Communicable Disease Consultant
Health Protection Unit
GNWT - H&SS

(403) 920-8646

IMMUNIZING FOR HEALTH: ACHIEVING OUR NATIONAL GOALS

Objectives: To present a forum for discussion and information exchange related to the practical aspects of immunization programs in Canada.
This will cover issues such as:

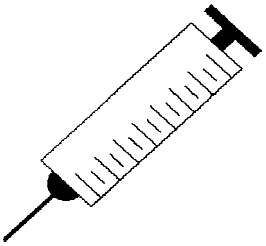
- Vaccine supply
- Global Immunization Efforts
- Regulations and Legislations

The conference will look at both programmatic issues. The main focus will be on childhood immunization. There will also be an examination of progress toward the achievement of recently established Canadian national goals for the reduction of vaccine-preventable diseases of infants and children.

To receive a Registration Package/Abstract Submission Form contact:

Mr. Chuck Schouwerwou, BA,CMP
Conference and Committee Coordinator
Division of Immunization, Bureau of Infectious Diseases
LCDC, Health Canada
P.L. 0603E1, 3rd Floor, LCDC Building
Tunney's Pasture , Ottawa, ON, K1A 0L2

Fax: (613) 998-6413



Canadian National Immunization Conference:

The Royal York Hotel
Toronto, Ontario
December 8-11, 1996

Notifiable Diseases by Region for Sept & Oct 1996

	DISEASE	Month	Cummulative		REGIONS (YTD - 1996)				
		Sept & Oct 1996	1995 YTD	1996 YTD	Baffin	Fort Smith/ Mackenzie	Inuvik	Keewatin	Kitikmeot
Vaccine Preventable Diseases	H. influenzae B	0	1	2	0	0	0	2	0
	Measles								
	Mumps	0	0	1	0	0	0	1	0
	Pertussis	24	9	40	5	23	7	5	0
	Rubella								
Enteric Diseases	Amoebiasis	0	2	0					
	Botulism	0	1	1	0	1	0	0	0
	Campylobacteriosis	1	12	14	1	12	0	1	0
	ClostridiumPerfringens								
	E.Coli 0157:H7								
	Food Poisoning								
	Giardiasis	4	24	17	2	6	0	7	2
	Salmonellosis	9	14	25	0	12	4	5	4
	Shigellosis		2	0					
	Tapeworm Infestation	1	2	1	1	0	0	0	0
	Trichinosis	1	8	3	0	1	0	1	1
Sexually Transmited Diseases	Chlamydia	144	607	566	171	173	74	91	56
	Gonnorhea	22	95	81	54	11	4	1	11
	Syphillis								
Viral Hepatitis	Hepatitis A	0	0	1	0	0	0	1	0
	Hepatitis B	3	2	4	1	3	0	0	0
	Hepatitis C	9	17	27	5	20	1	1	0
	Hepatitis, Other	0	1	1	0	1	0	0	0
Other Systemic Diseases	Brucellosis	1	0	1	0	0	0	1	0
	Chickenpox	158	720	525	74	406	1	23	21
	Malaria		1	0					
	Meningitis/Encephalitis	1	4	2	1	0	0	1	0
	Meningococcal infection	1	1	2	0	1	1	0	0
	Rabies Exposure								
	Tuberculosis	7	16	32	5	22	1	2	2

HIV INFECTIONS BY YEAR SEEN IN NWT RESIDENTS

YEAR	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996
NUMBER/YEAR	3	2	2	3	3	8	4	2	0	**1**
CUMULATIVE	3	5	7	10	13	21	25	27	27	**28**

Notifiable Diseases Reported By Community

July 1996

Chickenpox (varicella), 111: Yellowknife, 66; Fort Resolution, 21; Hall Beach, 10;Igloolik, 5; Repulse Bay, 5; Gjoa Haven, 2; Rankin Inlet, 2.

Chlamydia, 73: Yellowknife, 9; Inuvik, 7; Arviat, 5; Gjoa Haven, 4; Iqaluit, 4; Pangnirtung, 3; Rae, 3; Wha Ti, 3; Cambridge Bay, 2; Fort Good Hope, 2; Fort Providence, 2; Hall Beach, 2; Hay River, 2; Kugluktuk, 2; Paulatuk, 2; Rankin Inlet, 2; Sanikiluaq, 2; Aklavik, 1; Baker Lake, 1; Cape Dorset, 1 Clyde River, 1; Coral Harbour, 1; Deline, 1; Fort Simpson, 1; Igloolik, 1; Norman Wells, 1; Pelly Bay, 1; Rae Laks, 1; Taloyoak, 1; Tuktoyuktuk, 1; Whale Cove, 1; Wrigley, 1.

Giardiasis, 2: Kugluktuk, 1; Yellowknife, 1.

Gonorrhea, 14: Iqaluit, 10; Pangnirtung, 2; Fort McPherson, 1; Kugluktuk, 1.

Hepatitis C, 6: Yellowknife, 3; Chesterfield Inlet, 1; Iqaluit, 1; Norman Wells, 1.

Pertussis, 4: Yellowknife, 2; Fort McPherson, 1; Inuvik, 1.

Salmonellosis, 3: Lutselk'e, 2; Kugluktuk, 1.

Tuberculosis, 5: Arviat, 1; Deline, 1; Kugluktuk, 1; Fort Rae, 1, Yellowknife, 1.

August 1996

Brucellosis, 1: In Iqaluit.

Campylobacteriosis, 1: In Fort Rae.

Chickenpox (varicella), 47: Fort Resolution, 10; Repulse Bay, 8; Igloolik, 7; Yellowknife, 7; Broughton Island, 6; Wha Ti, 4; Sanikiluaq, 2; Resolute Bay, 1.

Chlamydia, 73: Iqaluit, 8; Yellowknife, 8; Inuvik, 7; Rae, 6; Coral Harbour, 5; Arviat, 3; Hall Beach, 3; Rankin Inlet, 3; Sanikiluaq, 3; Cambridge Bay, 2; Fort Simpson, 2; Fort Smith, 2; Igloolik, 2; Kugluktuk, 2; Baker Lake, 1; Broughton Island, 1; Cape Dorset, 1; Chesterfield Inlet, 1; Gjoa Haven, 1; Pangnirtun, 1; Paulatunk, 1; Rae Lakes, 1; Wha Ti, 1; Wrigley, 1.

Giardiasis, 1: InYellowknife.

Gonorrhea, 8: Iqaluit, 4; Cambridge Bay, 2; Holman, 1; Kugluktuk, 1.

Hepatitis C, 3: Yellowknife, 2; Hay River, 1.

Meningitis/Encephalitis, 1: In Iqaluit.

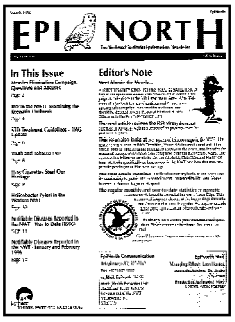
Pertussis, 1: In Yellowknife**.**

Salmonellosis, 4: Kugluktuk, 2; Chesterfield Inlet, 1; Yellowknife, 1**.**

Trichinosis, 1: In Repulse Bay.

Tuberculosis, 2: Fort Rae, 1; Iqaluit, 1.

Notifiable disease information reported in **EpiNorth** on a monthly basis reflects reports ***received*** in the ***Health Protection Unit*** during the current month, not the month in which the cases occurred. Health professionals who suspect or diagnose a Notifiable disease are required to report the disease to their ***Regional Medical Health Officer*** within the time frame legislated in the Publich Health Act/Communicable Disease Regulations.


EPI NORTH

In This Issue

Editor's Note

EpiNorth is a publication of the Health Protection Unit, Division of Population Health, Department of Health and Social Services.

Contributions are welcome and should be sent to the Managing Editor. Articles should be in WordPerfect format. Inclusion of material in **EpiNorth** does not preclude publication elsewhere.

Views expressed are those of the authors and do not necessarily reflect departmental policy.

News Clips:

Viral Meningitis: Manitoba

Between May 1 and August 31, Manitoba reported 33 cases of cerebral spinal fluid (CSF) positive for enterovirus. Nine (27%) of these cases occurred in July and 21 (64%) occurred in August. Only 17 cases were reported during the same period in 1995. The majority of the specimens have been typed as echovirus 09 (22/23). One specimen has been identified as coxsackie virus. No other typing results are available for the remainder of the CSF specimens. One third of the cases are in children less than one year of age. Other age groups most frequently affected are 5-9 years (8/33), 10-14 years (7/33) and 20+ (5/33). 18 males and 15 females have been affected. The cases are spread across four different regions in Manitoba: Eastman (4); Interlake (2); Winnipeg (24); and Thompson (3). The Winnipeg cases are spread throughout the city. Intra-family transmission occurred in only 2 families. No other links between cases have been identified.

Source: Manitoba Health

Parainfluenza: Manitoba

A higher than expected number of cases of parainfluenza infection are reported. Cases have been recorded in the Northwest Territories and Manitoba.

Source: Cadham Provincial Laboratory

E.coli: Japan

As of August 26, a total of 9,578 cases of Escherichia coli serotype O157:H7 have been reported in Japan, resulting in 11 deaths. The most recent large outbreak is primarily affecting the city of Sakai, near Osaka, and appears to have caused more than 5000 cases and 6 deaths.. Most cases appear to be in school children. School lunches are the suspected source of transmission, but this has not been confirmed either epidemiologically or by microbiologic testing of food samples. Analysis of the DNA patterns in a variety of isolates suggest that contamination originated from a number of sources.

Persons travelling to Japan may have concerns about their risk of becoming ill. The available information does not suggest that travellers are at particular risk, nor does it identify a specific food to avoid. The precautions that are recommended to prevent E. coli O157:H7 in this country are appropriate anywhere in the world; these include avoiding consumption of raw beef, unpasteurized milk, and unchlorinated water.

Source: CDC Home Page, WHO

Vancomycin-resistant Enterococci: Saskatchewan

Since June 22, 1996, four cases of Vancomycin Resistant-Enterococci (VRE) and 18 carriers have been indentified at the St. Paul's Hospital in Saskatoon. One case and three carriers have also been identified at the Regina General Hospital. Three of these are contacts of an "index case" who transferred from St. Paul's to Regina. No deaths have been associated with the condition to date and the situation appears to be confined to the two hospitals. Most of these VRE-positive individuals have been discharged back to their communities in Saskatoon and Regna districts.

Both hospitals have taken appropriate infection control measures to contain the situation. There are protocols in place to guide transfers and discharges from hospitals in Regina or Saakatoon Health Districts. When these hospitals are planning to transfer patients with VRE to another district, both receiving doctor and district health officials are notified well in advance. This allows the receiving institutions time to put the necessary protocols in place for caring for the patient.

Similarly, the names of VRE carriers to be discharged into the community and the other provinces are provided to the district MHO of MOH and the Provincial Epidemiologist to notify the receiving facility or institution.

The laboratory investigations and surveillance activities, including DNA typing are ongoing and the above figures are expected to change. Updates will be provided as appropriate. Saskatchewan Health will coordinate a province-wide VRE surveillence strategy shortly.
Source: Saskatchewan Health

Pediculosis: Manitoba

There have been a number of occurrences this summer of what appears to be head lice resistant to the Nix shampoo product. Other similar occurrences have been reported in Manitoba over the past few years. Manitoba Health reports that while Kwellada is their preferred alternate treatment where Nix resistance is suspected, R&C proved effective in one family with Nix resistance.
Source: Manitoba Health

Botulism: Italy

The USDA has received information about several cases of botulism in Italy among persons who consumed mascarpone cheese. At lease one person has died and several others have been hospitalized. It is unclear if the suspected product has been exported to the US [or Canada]. Source: CDC