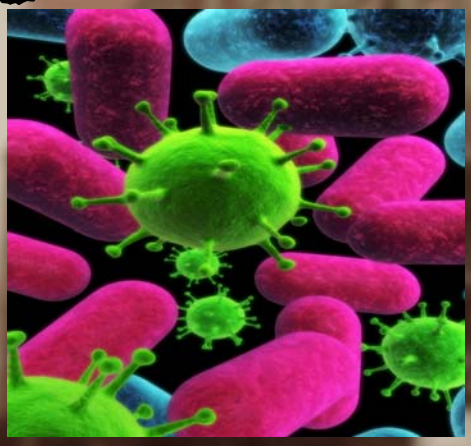
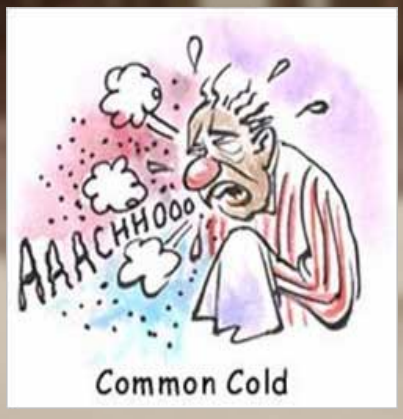
Communicable Disease Newsletter

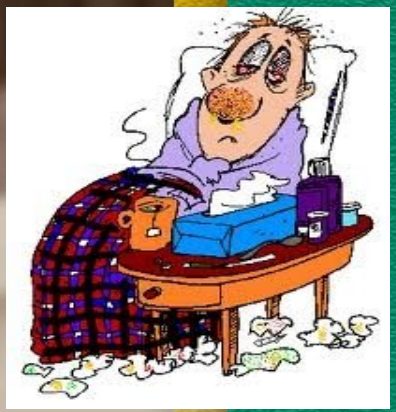
In this edition:

Meningitis



Cold vs. Flu





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MENINGITIS

WHAT IS MENINGITIS?

Meningococcal disease, or more commonly – meningitis, is an acute, potentially severe illness caused by inflammation of the protective covering (meninges) of the brain and spinal cord. The disease may be caused by bacteria or viruses and the severity of the disease depends heavily on the cause. Viral meningitis is generally less severe and usually resolves without specific treatment within 1-2 weeks. Bacterial meningitis is more severe and may result in residual conditions such as meningococcal sepsis, conjunctivitis, pneumonia, hearing loss, neurologic damage, loss of a limb and even death.

WHO IS AT RISK?

The disease occurs most often in children under 2 and adolescents 15-18 years of age. Groups most at risk for invasive meningococcal disease are persons with functional or anatomic asplenia, persons with terminal complement component deficiencies (C3, C5-9), adolescents (13-18 years of age), college students residing in dormitories, microbiologists, military recruits, and persons traveling to, or residing in, countries where meningococcal disease is prevalent.

HOW IS IT SPREAD?

Disease transmission occurs through droplet aerosol (coughing, sneezing, talking) or secretions from the nasopharynx of both symptomatic and asymptomatic individuals (sharing drinks, lip gloss, eating utensils, etc.). The incubation period is 3-4 days, with a range of 1-10 days. Humans are the only natural reservoir for the primary causative agent, *N. meningitidis*, and as many as 10% of adolescents and adults are asymptomatic carriers of the organism.

SIGNS & SYMPTOMS

It is easy to mistake the initial signs and symptoms of meningitis for the flu. Individuals may experience a sudden onset of fever, headache, stiff neck, photophobia (sensitivity to light), nausea, vomiting and altered mental status. Infection of the bloodstream may result in a petechial or purpuric rash.

The classic symptoms may be difficult to assess in newborns and infants as they may exhibit poor eating habits, unusual sleepiness, and increasing irritability (inconsolable crying). It is important to seek medical advice if any of these symptoms are noted.

DIAGNOSIS & TREATMENT

In order to determine the cause of meningococcal infection, it is necessary to obtain a fluid sample from the nasopharynx with a cotton swab or cerebrospinal fluid through lumbar puncture. The results will determine the appropriate treatment for the patient and their close contacts. Viral meningitis usually resolves with proper rest and fluids. Aggressive antibiotic therapy with broad-spectrum medications should be started immediately after obtaining appropriate bacterial cultures when meningitis is suspected. If *N. meningitidis* infection is confirmed, penicillin therapy is recommended.

PREVENTION

Vaccines are available in the United States that offer protection against some strains of the bacteria which cause the majority of disease cases. Children between 6 weeks and 4 years of age receive Hib and pneumococcal conjugate (Prevnar-13) vaccines as part of their routine immunization visits. In addition, children 9-23 months of age who meet certain risk factors are indicated to receive a 2-dose series of meningococcal vaccine also.

Vaccines are also available for adolescents and adults to aide in the prevention of bacterial meningococcal disease. These vaccines are recommended for routine administration to adolescents beginning at 11-12 years of age and also for anyone considered to be at risk.

Washing your hands thoroughly and frequently is the best defense against meningitis and other infectious diseases. For additional information, please contact your health care provider or the Saginaw County Department of Public Health's Immunization Program at (989) 758-3840.

(Continued on next page)

MENINGITIS

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COLD VS. FLU

Cold vs. Flu

It's that time of year when seasonal flu and colds are in full swing. It can be difficult to tell the difference between the two. Common colds can be caused by more than 200 different viruses. Some of the most common cold viruses are rhinoviruses, coronaviruses and the respiratory syncytial virus (RSV). Rhinoviruses cause 10% to 40% of colds. The respiratory sycytial virus and coronaviruses cause 20% and 10% of cases respectively.

The "flu" is caused by various influenza viruses. The flu is a contagious respiratory illness most often spread when there is direct contact with droplets transferred from one person to another through coughing, sneezing and talking. It can also be spread by touching surfaces or objects with flu virus on them and then touching one's own mouth, eyes, or nose. The flu can cause mild to severe illness and even death. Each year in the United States up to 20% of the population is infected with influenza accounting for greater than 200,000 hospitalizations and 36,000 related deaths.

So how can you tell the difference between the two? Both can cause coughing, fever, tiredness and achiness. Below is a chart that can help determine if you have the flu or a cold. Sometimes it is impossible to distinguish the difference. Generally symptoms with the flu are more severe than those with a cold. If treatment is begun at the first signs of the flu, medication (anti-viral medication) can lessen the severity and length of this illness.

Know the Difference between Cold and Flu Symptoms

Symptom	Cold	Flu
Fever	Fever is rare with a cold.	Fever is usually present with the flu in up to 80% of all flu cases. A temperature of 100°F or higher for 3 to 4 days is associated with the flu.
Coughing	A hacking, productive (mucus- producing) cough is often present with a cold.	A non-productive (non-mucus producing) cough is usually present with the flu (sometimes referred to as dry cough).
Aches	Slight body aches and pains can be part of a cold.	Severe aches and pains are common with the flu.
Stuffy Nose	Stuffy nose is commonly present with a cold and typically resolves spontaneously within a week.	Stuffy nose is not commonly present with the flu.
Chills	Chills are uncommon with a cold.	60% of people who have the flu experience chills.
Tiredness	Tiredness is fairly mild with a cold.	Tiredness is moderate to severe with the flu.
Sneezing	Sneezing is commonly present with a cold.	Sneezing is not common with the flu.
Sudden Symptoms	Cold symptoms tend to develop over a few days.	The flu has a rapid onset within 3-6 hours. The flu hits hard and includes sudden symptoms like high fever, aches and pains.
Headache	A headache is fairly uncommon with a cold.	A headache is very common with the flu, present in 80% of flu cases.
Sore Throat	Sore throat is commonly present with a cold.	Sore throat is not commonly present with the flu.
Chest Discomfort	Chest discomfort is mild to moderate with a cold.	Chest discomfort is often severe with the flu.

COMMUNICABLE DISEASE
REPORTED FOR SAGINAW COUNTY
FOR THE QUARTER
10/1/2011 – 12/31/2011

Disease	No. Reported
ANIMAL BITE	13
CAMPYLOBACTER	<5
CHLAMYDIA (Genital)	361
CRYPTOSPORIDIOSIS	<5
FLU-LIKE DISEASE	3302
GASTROINTESTINAL ILLNESS	1111
GIARDIASIS	<5
GONORRHEA	58
GUILLAIN-BARRE SYNDROME	<5
HEAD LICE	172
HEPATITIS A (ACUTE)	<5
HEPATITIS B (ACUTE)	5
HEPATITIS B CHRONIC	<5
HEPATITIS C ACUTE	13
HEPATITIS C CHRONIC	18
HISTOPLASMOSIS	**<5**
HIV	0
INFLUENZA	0
MENINGITIS-ASEPTIC	<5
MENINGITIS-BACTERIAL	**<5**
Q FEVER-ACUTE	<5
SALMONELLOSIS	<5
STREP THROAT	573
SHIGA TOXIN-PRODUCING ESCHERICHIA COLI	<5
SYPHILIS	1

COMMUNICABLE DISEASE YTD
REPORTED FOR SAGINAW COUNTY
1/1/2011– 12/31/11

Disease	No. Reported
ANIMAL BITE	70
CAMPYLOBACTER	7
CHICKENPOX (Varicella)	12
CHLAMYDIA (Genital)	1544
COCCIDIOIDOMYCOSIS	<5
CRYPTOSPORIDIOSIS	<5
FLU LIKE DISEASE	11825
GASTROINTESTINAL ILLNESS	5179
GIARDIASIS	7
GONORRHEA	200
GUILLAIN-BARRE SYNDROME	<5
HEAD LICE	496
HEPATITIS A	6
HEPATITIS B ACUTE	5
HEPATITIS B CHRONIC	10
HEPATITIS C ACUTE	13
HEPATITIS C CHRONIC	109
HEPATITIS E	<5
HIV	<5
INFLUENZA	**22**
LEGIONELLOSIS	<5
MENINGITIS-ASEPTIC	20
MENINGITIS-BACTERIAL	5
NOROVIRUS	<5
Q FEVER-ACUTE	**<5**
SALMONELLOSIS	25
SHIGA TOXIN-PRODUCING ESCHERICHIA COLI	<5
SHIGELLOSIS	10
STREP PNEUMONIAE	<5
STREP THROAT	2441
SYPHILIS	6
TUBERCULOSIS	<5

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Please visit our website at www.saginawpublichealth.org where our communicable disease pamphlets are available.

Articles for this newsletter are written and researched by the following members of the Personal and Preventive Health Services Division: Vickie DeShaw, R.N., B.S.N., Tawnya Simon, R.N., B.S.N., M.S.A., Susan Gottlieb, R.N., and Kemberly Parham, R.N., B.S.N.

If you would like to receive this newsletter by e-mail please submit your e-mail address to: kburlingame@saginawcounty.com

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