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General Information

Communicable Disease
and Epidemiology
(630) 221-7553

Environmental Health
(630) 682-7400

Immunizations
(630) 682-7400

Sexually
Transmitted Diseases
(630) 221-7553

HIV/AIDS
(630) 221-7553

Tuberculosis
(630) 221-7522

School Health
(630) 221-7300

Travel Clinic
(630) 682-7400

Animal Care & Control
(630) 407-2800

Please contact
Communicable Disease
and Epidemiology at
(630) 221-7553
with suggestions
or to be added to the
distribution list.

The purpose of this two-page surveillance update is to promote the control and prevention of **communicable disease (CD)** by providing clinically relevant information and resources to healthcare professionals in DuPage County.



Under the Microscope *Streptococcus pneumoniae*

For questions or to report suspect and known cases of **invasive pneumococcal disease** (e.g., bacteremia, meningitis, or infection of a normally sterile site) in children < 5 years of age, please call the DuPage County Health Department at (630) 221-7553.

Streptococcus pneumoniae (pneumococcus), a gram-positive bacterium, is a leading cause of illness and death worldwide for young children, persons with underlying medical conditions, and the elderly.¹

Each year in the U.S., pneumococcal disease accounts for a substantial number of cases of **invasive** (e.g., meningitis, bacteremia) and **non-invasive** (e.g., pneumonia, acute otitis media [AOM]) disease.¹ Pneumococcal disease is preceded by asymptomatic colonization of the nasopharynx which tends to be especially common in children. Acute otitis media (AOM) is the most common clinical manifestation of pneumococcal infection among children and the most common outpatient diagnosis resulting in antibiotic prescriptions in that group.¹ **Approximately 10% of all patients with invasive pneumococcal disease die of their illness**, but case-fatality rates are higher for the elderly and patients with certain underlying illnesses.¹

Pneumococcal pneumonia is the most common clinical presentation of pneumococcal disease among adults, although pneumonia alone is not considered to be "invasive" disease. Pneumonia is a common bacterial complication of influenza and measles. **Bacteremia occurs in about 25%–30% of patients with pneumococcal pneumonia**. The overall case-fatality rate for bacteremia is about 20% but may be as high as 60% among elderly patients. Patients with asplenia who develop bacteremia may experience a fulminant clinical course.²

Pneumococci cause over 50% of all cases of bacterial meningitis in the U.S. Some patients with pneumococcal meningitis also have pneumonia. The **case-fatality rate of pneumococcal meningitis is about 8% among children and 22% among adults**. Neurologic sequelae are common among survivors. Adults with certain medical conditions (e.g., hematologic cancer, immunocompromising conditions, functional or anatomic asplenia, renal disease, chronic heart disease, pulmonary disease including asthma, liver disease, smoking cigarettes, cerebrospinal fluid [CSF] leak, and having a cochlear implant) are at high risk for invasive pneumococcal disease.²

Bacteremia without a known site of infection is the most common invasive clinical presentation of pneumococcal infection among children 2 years of age and younger, accounting for approximately 70% of invasive disease in this age group. Bacteremic pneumonia accounts for 12%–16% of invasive pneumococcal disease among children 2 years of age and younger. **With the decline of invasive *Haemophilus influenzae* type b disease, *S. pneumoniae* has become the leading cause of bacterial meningitis among children younger than 5 years of age in the U.S.**²

PREVENTION

Pneumococcal conjugate vaccine, PCV13 or Prevnar 13®, is currently recommended for **all children younger than 5 years of age, all adults 65 years or older, and persons 6 through 64 years of age with certain medical conditions** (e.g., immunocompromising conditions, functional or anatomic asplenia, cerebrospinal fluid [CSF] leak, or cochlear implants).³

Pneumovax® is a 23-valent pneumococcal polysaccharide vaccine (PPSV23) that is currently recommended for use in **all adults 65 years of age or older and for persons who are 2 years and older and at high risk for pneumococcal disease** (e.g., those with sickle cell disease, HIV infection, or other immunocompromising conditions). PPSV23 is also recommended for use in **adults 19 through 64 years of age who smoke cigarettes or who have asthma**.³

Pneumococcal vaccine-naïve persons: For immunocompetent adults aged ≥65 years who have not previously received pneumococcal vaccine, **a dose of PPSV23 should be given ≥1 year following a dose of PCV13**. The two vaccines should **not be co-administered**. If a dose of PPSV23 is inadvertently given earlier than the recommended interval, the dose need not be repeated.⁴

Previous vaccination with PPSV23: For immunocompetent adults who previously received PPSV23 when aged <65 years and for whom an additional dose of PPSV23 is indicated when aged ≥65 years, **this subsequent PPSV23 dose should be given ≥1 year after PCV13 and ≥5 years after the most recent dose of PPSV23**.⁴

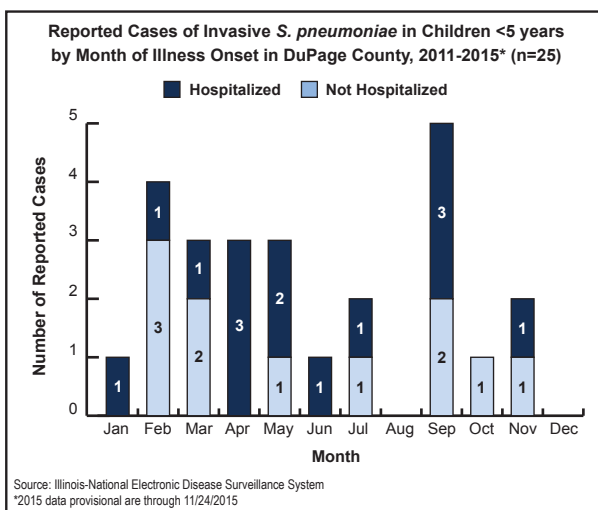
For adults aged ≥65 years with immunocompromising conditions, functional or anatomic asplenia, CSF leak, or cochlear implants, the **recommended interval between PCV13 followed by PPSV23 is ≥8 weeks**.⁴

Potential Time-Limited Utility of Routine PCV13 Use among Adults ≥65 Years. The recommendations for routine PCV13 use among adults aged ≥65 years will be reevaluated in 2018 and revised as needed.⁵

Additional guidance on PCV13 and PPSV23 recommendations in adults is available at: www.cdc.gov/vaccines/vpd-vac/pneumo/vac-PCV13-adults.htm

References:

1. www.cdc.gov/vaccines/pubs/surv-manual/chpt11-pneumo.pdf
2. www.cdc.gov/vaccines/pubs/pinkbook/downloads/pneumo.pdf
3. www.cdc.gov/vaccines/vpd-vac/pneumo/default.htm
4. www.cdc.gov/mmwr/preview/mmwrhtml/mm6434a4.htm
5. www.cdc.gov/mmwr/preview/mmwrhtml/mm6337a4.htm



DUPAGE COUNTY HEALTH DEPARTMENT

CASES¹ OF REPORTABLE DISEASES*

* Last updated by the Illinois Department of Public Health in February 2014

CD REVIEW

Volume 11, No. 11 November 2015

Vaccine Preventable Diseases	Report Within	2015		2014		2013		2012		2011		Median	
		Oct	Jan-Oct	Jan-Oct	Total	Jan-Oct	Total	Jan-Oct	Total	Jan-Oct	Total	Jan-Oct	Total ('11-'14)
Chickenpox (varicella)	24 hrs	2	28	63	76	62	78	83	93	55	82	62	80
Diphtheria	3 hrs	0	0	0	0	0	0	0	0	0	0	0	0
Haemophilus influenzae, invasive	24 hrs	1	12	4	5	8	10	9	11	11	15	9	10.5
Hepatitis A	24 hrs	0	4	8	8	4	4	7	8	5	8	5	8
Hepatitis B	7 days	0	1	3	5	3	3	4	5	1	1	3	4
Hepatitis B (carriers)	7 days	11	102	90	112	97	110	80	101	91	113	91	111
Influenza, deaths in < 18 yrs old	7 days	0	0	0	0	1	1	0	0	0	0	0	0
Influenza, ICU admissions	24 hrs	2	38	48	152	57	78	11	64	24	24	38	71
Measles (rubeola)	24 hrs	0	0	0	0	0	0	0	0	0	0	0	0
Mumps	24 hrs	0	7	2	2	0	0	1	1	2	3	2	1.5
Neisseria meningitidis, invasive	24 hrs	0	1	0	0	0	0	0	0	1	2	0	0
Pertussis (whooping cough)	24 hrs	4	27	19	22	39	43	181	195	197	268	39	119
Polio	3 hrs	0	0	0	0	0	0	0	0	0	0	0	0
Rubella	24 hrs	0	0	0	0	0	0	0	0	0	0	0	0
Streptococcus pneumoniae, invasive disease, in those < 5 yrs old	7 days	0	0	2	2	4	4	5	5	11	13	4	4.5
Tetanus	7 days	0	0	0	0	0	0	0	0	0	0	0	0
Other Communicable Diseases													
Anaplasmosis ²	7 days	1	2	3	3	0	0	1	2	3	3	2	2.5
Anthrax	3 hrs	0	0	0	0	0	0	0	0	0	0	0	0
Botulism, foodborne	3 hrs	0	0	0	0	0	0	0	0	0	0	0	0
Botulism, other	24 hrs	0	0	0	0	0	0	0	0	0	0	0	0
Brucellosis	3 hrs	0	0	0	0	0	0	0	0	0	0	0	0
California encephalitis ³	7 days	0	0	0	0	0	0	0	0	0	0	0	0
Chikungunya fever ³	7 days	0	2	0	0	NR	NR	NR	NR	NR	NR	1	0
Cholera	24 hrs	0	0	0	0	0	0	0	0	0	0	0	0
Creutzfeldt-Jakob disease	7 days	0	1	2	2	0	0	1	1	1	3	1	1.5
Cryptosporidiosis	7 days	0	3	2	2	5	7	2	2	5	5	3	3.5
Cyclosporiasis	7 days	0	1	0	1	4	4	0	0	0	0	0	0.5
Dengue fever ³	7 days	0	3	1	1	3	3	1	1	1	1	1	1
Ehrlichiosis ²	7 days	0	1	0	0	0	0	0	0	0	0	0	0
Enteric E. coli infections ⁴	24 hrs	1	11	17	18	52	54	16	19	19	22	17	20.5
Glomerulonephritis ⁵	24 hrs	0	0	0	0	0	0	0	0	0	0	0	0
Hantavirus pulmonary syndrome	24 hrs	0	0	0	0	0	0	0	0	0	0	0	0
Hemolytic uremic syndrome	24 hrs	0	0	2	2	0	0	1	1	1	1	1	1
Hepatitis C (cases & carriers)	7 days	13	200	207	242	149	182	156	171	160	189	160	185.5
Hepatitis D	7 days	0	0	0	0	0	0	0	0	1	1	0	0
Histoplasmosis	7 days	0	3	6	7	0	1	2	2	0	1	2	1.5
Influenza A, novel virus	3 hrs	0	0	0	0	0	0	0	0	0	0	0	0
Legionellosis	7 days	1	14	24	26	36	39	24	25	10	14	24	25.5
Leprosy	7 days	0	0	0	0	0	0	0	0	0	0	0	0
Leptospirosis	7 days	0	0	0	0	0	0	0	0	0	0	0	0
Listeriosis	7 days	0	2	2	2	1	2	2	2	2	2	2	2
Lyme disease ²	7 days	0	26	21	22	39	39	26	27	32	32	26	29.5
Malaria	7 days	1	3	1	2	7	7	2	2	7	7	3	4.5
Ophthalmia neonatorum	7 days	0	0	0	0	0	0	0	0	0	0	0	0
Plague	3 hrs	0	0	0	0	0	0	0	0	0	0	0	0
Psittacosis	7 days	0	0	0	0	0	0	0	0	0	0	0	0
Q fever	3 hrs	0	0	0	0	0	0	0	0	0	0	0	0
Rabies, animal case	24 hrs	0	16	6	6	NR	NR	NR	NR	NR	NR	11	6
Rabies, human case	24 hrs	0	0	0	0	0	0	0	0	0	0	0	0
Rabies, potential exposure	24 hrs	1	70	51	51	44	44	42	43	28	30	44	43.5
Reye syndrome	7 days	0	0	0	0	0	0	0	0	0	0	0	0
Rheumatic fever ⁵	24 hrs	0	0	0	0	0	0	0	0	0	0	0	0
Rocky Mountain spotted fever ²	7 days	0	0	0	0	0	0	1	1	0	0	0	0
Salmonellosis	7 days	9	115	93	115	117	128	102	123	83	95	102	119
Severe Acute Respiratory Syndrome	3 hrs	0	0	0	0	0	0	0	0	0	0	0	0
Shigellosis	7 days	3	20	16	18	16	18	18	20	17	22	17	19
Smallpox	3 hrs	0	0	0	0	0	0	0	0	0	0	0	0
Smallpox vaccination, complications	24 hrs	0	0	0	0	0	0	0	0	0	0	0	0
St. Louis encephalitis ³	7 days	0	0	0	0	0	0	0	0	0	0	0	0
Staphylococcus aureus, methicillin resistant (MRSA), in those < 61 days old	24 hrs	3	8	6	9	2	3	6	7	3	3	6	5
Staphylococcus aureus, methicillin resistant (MRSA), community cluster ⁶	24 hrs	0	1	0	0	0	0	1	1	0	0	0	0
Staphylococcus aureus (vancomycin-resistant)	24 hrs	0	0	0	0	0	0	0	0	1	1	0	0
Streptococcal infections, group A invasive disease ⁷	24 hrs	1	19	26	29	19	21	17	20	26	30	19	25
Toxic shock syndrome ⁸	7 days	0	0	0	0	1	1	0	0	1	1	0	0.5
Trichinosis	7 days	0	0	0	0	0	0	0	0	0	0	0	0
Tuberculosis	7 days	6	24	22	34	25	35	19	26	16	23	22	30
Tularemia	3 hrs	0	0	0	0	0	0	1	1	0	0	0	0
Typhoid fever	24 hrs	0	2	4	5	0	2	1	2	3	3	2	2.5
Typhus	24 hrs	0	0	0	0	0	0	0	0	0	0	0	0
Vibriosis (non-cholera)	7 days	0	4	3	3	2	2	4	4	3	3	3	3
West Nile virus disease ³	7 days	1	9	5	5	6	6	55	56	2	2	6	5.5
Yersiniosis	7 days	0	1	3	3	2	2	3	3	2	3	2	3
STDs, HIV and AIDS													
AIDS ⁹ (July-September)	7 days	--	9	14	15	21	25	12	17	13	16	13	16.5
Chancroid	7 days	0	0	0	0	0	0	0	0	0	0	0	0
Chlamydia	7 days	115	1728	1601	2056	1577	1883	1567	1861	1353	1599	1577	1872
Gonorrhea	7 days	21	228	172	242	218	258	197	239	200	241	200	241.5
HIV infection ⁹ (July-September)	7 days	--	11	24	29	21	28	15	20	19	24	19	26
Syphilis ¹⁰	7 days	1	26	33	41	28	34	15	19	23	24	26	29

DuPage County healthcare providers and hospitals must report any suspected or confirmed case of these diseases to the local health authorities within the number of hours or days indicated.

REPORTING NUMBERS:

Communicable Diseases (630) 221-7553
24 hours: (630) 682-7400

Tuberculosis (630) 221-7522

STDs (630) 221-7553

HIV/AIDS: (630) 221-7553

- ¹ Provisional cases, based on date of onset
 - ² Listed in CD Rules and Regulations under "Tickborne Disease"
 - ³ Listed in CD Rules and Regulations under "Arboreal Infections"
 - ⁴ O157:H7, STEC, EIEC, ETEC, EPEC
 - ⁵ Listed in CD Rules and Regulations under "Streptococcal infections, group A invasive disease sequelae"
 - ⁶ Two or more laboratory-confirmed cases of community onset MRSA infection during a 14 day period
 - ⁷ Includes streptococcal toxic shock syndrome and necrotizing fasciitis
 - ⁸ Due to *Staphylococcus aureus*
 - ⁹ HIV/AIDS data are provided quarterly by IDPH and are provisional, based on date of diagnosis.
 - ¹⁰ Cases are provisional, based on test date per local health department investigation.
- NR = Not reported
** = Count of 5 cases or less

Websites

CDC: www.cdc.gov

IDPH: www.dph.illinois.gov

DuPage: www.dupagehealth.org

Archived issues of CD Review are available at: www.dupagehealth.org/publications