

New International School Thailand

Infectious Diseases Protocol



Introduction

The New International School Thailand (*NIST*), places a high priority on the need to prevent the spread of infectious diseases in our school and community. By using the information and protocol/s described in this document, it is hoped that the health and regular school attendance of students can be improved so that they may attain or maintain their maximum potential for learning.

These protocols and adopted guidelines relating to the appropriate manner of managing infectious diseases, are based on current information available as of **October 2005** from the **World Health Organization, Center for Disease Control** and **International SOS**

<http://www.who.int/en/>
Governmental Directives and Guidelines
<http://www.cdc.gov/>
Multinational Guidelines
<http://www.internationalsos.com/>
Public Guidelines

This document contains the most current information on how to maintain school programs that will meet the health and educational needs of students who have infectious diseases and additionally how to prevent the spread of diseases in the school setting. It is hoped that these protocols will assist *NIST's* employees and community in their efforts to maintain and not compromise the health and safety all student's.

“These measures are designed to protect students as well as to reduce the likelihood of the spread of infection through the school and the wider *NIST* community”.

If avian flu becomes pandemic, there is a possibility that some countries may close their borders; this is an option that is being considered by some nations throughout the world. Decisions to close borders may be taken very quickly following declaration of a pandemic. **Therefore, you need to consider in advance how you can care for yourself, and your family, wherever you are.**

Important Note

Children who are unwell should not be allowed to attend school. These guidelines have been drawn up on the premise that children who have been ill with an infectious disease will not return to school until they have fully recovered. The only exception to this rule is that children with certain skin diseases may return once appropriate treatment has commenced.

These recommended periods are issued as a guide to teaching staff and medical/health practitioners, and may be modified in individual cases as circumstances warrant.

In cases of doubt, or for guidance, in cases of conditions not mentioned on the list, advice should be sought from an appropriate health authority.

Infectious Diseases Protocol

Exclusion from School Protocol

The following Protocol will be implemented by the New International School of Thailand on a discretionary basis during a high level alert as directed by *WHO, CDC, SOS or MoE*.

NIST Employees

- Any NIST employees who have visited high level of human infections by either the *World Health Organization, the Center for Diseases Control or International SOS*, will not be permitted access to the school campus for what ever reason, for a period of time stipulated by the aforementioned organization (this period will be posted on NIST website, at the front of school and staff rooms).
- Employees who are infected will attempt to keep in contact with NIST via phone, fax or e-mail. Teaching staff should attempt to contact students and school via e-mail, so that student studies are not affected.

Students

- All NIST students who have visited an area designated high level of human infections by either the *World Health Organization, the Center for Diseases Control or International SOS*, will not be permitted access to the school campus for what ever reason, for a period of time stipulated by the aforementioned organization (this period will be posted on NIST website, at the front of school and student bulletin boards)
- Teachers will keep in contact via phone and e-mail during this period
- No other students should be asked to deliver homework to infected student/s during this period.

Parents and Visitors

- Parents and Visitors who are known to have visited an area designated high level of human infections by either the *World Health Organization, the Center for Diseases Control or International SOS*, will not be permitted access to the school campus for what ever reason for a period of time stipulated by the aforementioned organization (this period will be posted on NIST website and at the front of school). Parents and Visitors should visit the following websites for current information and guidelines.
<http://www.who.int/en/> , <http://www.cdc.gov/> , <http://www.internationalsos.com/>
- Parents and Visitors who know they have visited an infected area should not enter NIST campus for the wellbeing of the greater NIST community.

Infected Persons – see parents supplement

- Infected persons should not come in contact with other persons from the NIST community, where possible.
- Infected persons should seek medical advice immediately and **MUST** inform the Hospital, Clinic or Doctor of their condition and possible exposure, before seeing medical staff or entering a health care facility.
- Family members of an infected person should monitor their health very closely for any sign of illness, and have as little direct contact with the infected person as possible.

Infection control measures in the home –Parents Supplement

- Hand hygiene -- All persons in the household should carefully follow recommendations for hand hygiene (i.e., hand washing with soap and water or use of an alcohol-based hand rub) after touching body fluids (e.g., respiratory secretions, stool, urine, vomitus) and potentially contaminated surfaces and materials (e.g., linen). Hand hygiene supplies (soap/water, alcohol-based hand rub, disposable towels) should be available and replenished as needed. (See www.cdc.gov/handhygiene/.)
- Source control -- Patients should cover the nose/mouth when coughing and dispose of tissues in a lined waste container. If possible, the patient should wear a surgical mask when others are present. If the patient cannot wear a mask, persons in close contact with the patient should wear a mask. Masks should fit snugly around the face and should not be touched or handled during use. If masks will be reused by persons in the home, procedures for identifying each person's mask and containing it between uses should be in place. A supply of masks should be available based on the volume needed each day.
- Gloves and other protective attire -- Use of disposable gloves should be considered for any direct contact with the body fluids of a patient with possible or known disease. **However, gloves are not intended to replace proper hand hygiene.** Immediately after gloves are removed, they should be discarded and hand hygiene should be performed. Gloves must never be washed or reused.
- Laundry (e.g., bedding, towels and clothing) -- Towels and bedding should not be shared. Laundry may be washed in a standard washing machine with warm water and detergent; bleach may be added but is not necessary. Gloves should be worn when handling soiled laundry, and care should be used when handling soiled laundry to avoid direct contact of skin and/or clothing with contaminated material. Soiled laundry should not be shaken or otherwise handled in a manner that may aerosolize infectious particles.
- Dishes and other eating utensils -- Objects used for eating should not be shared, but separation of eating utensils for use by the patient is not necessary. Soiled dishes and eating utensils should be washed either in a dishwasher or by hand with warm water and soap.
- Household waste -- Gloves, tissues, and other waste generated in the care of a patient should be bagged and placed in another container for disposal with other household waste.
- Cleaning and disinfection of environmental surfaces -- Environmental surfaces that are frequently touched by the patient or are soiled with body fluids should be cleaned and disinfected with a household disinfectant. The bathroom used by the patient should be cleaned daily, if possible. Household utility gloves should be worn during the cleaning process.

Is It a Cold or the Flu?

Public Information from the National Institute of Allergy and Infectious Diseases

Symptoms	Cold	Flu
Fever	Rare	Characteristic, high (102-104°F); lasts 3-4 days
Headache	Rare	Prominent
General Aches, Pains	Slight	Usual; often severe
Fatigue, Weakness	Quite mild	Can last up to 2-3 weeks
Extreme Exhaustion	Never	Early and prominent
Stuffy Nose	Common	Sometimes
Sneezing	Usual	Sometimes
Sore Throat	Common	Sometimes
Chest Discomfort, Cough	Mild to moderate; hacking cough	Common; can become severe
Complications	Sinus congestion or earache	Bronchitis, pneumonia; can be life-threatening
Prevention	None	Annual vaccination; amantadine or rimantadine (antiviral drugs)
Treatment	Only temporary relief of symptoms	Amantadine or rimantadine within 24-48 hours after onset of symptoms

Common Infectious Diseases

Disease or condition	Exclusion of case definition from school or work	Exclusion of contacts definition from school or work
Bronchitis	Exclude until the person has been given appropriate treatment and feels well.	Not excluded
Campylobacter infection	Exclude until diarrhoea has ceased.	Not excluded
Chickenpox (varicella) and shingles (herpes zoster)	Exclude until all lesions have crusted, there are no moist sores and the person feels well. In chickenpox, some remaining scabs are not an indication for continued exclusion. Readmit when fully recovered from shingles.	Any child with an immune deficiency, e.g. leukemia or receiving chemotherapy should be excluded for their own protection.
Common cold	Exclusion is NOT necessary	Not excluded
Conjunctivitis	Exclude during the acute stage of the infection—readmit when discharge has ceased.	Not excluded
Cryptosporidiosis	Exclude until diarrhoea has ceased.	Not excluded
Diphtheria	Readmit after receipt of medical certificate of recovery, after at least two negative nose and throat swabs.	Exclude household contacts or after receipt of medical certificate of recovery.
Encephalitis	No exclusion periods unless due to measles, in which case exclude until fully recovered.	
Fifth disease (erythema infectiosum, parvovirus infection)	Exclusion NOT necessary	Not necessary
Giardia lamblia (giardiasis), campylobacter, cryptosporidiosis, salmonella	Readmit once diarrhoea ceases. Giardia: exclude until treatment and diarrhoea have ceased.	Not excluded
Glandular fever (mononucleosis)	Exclusion NOT necessary	Not excluded

Common Infectious Diseases

Disease or condition	Exclusion of case definition from school or work	Exclusion of contacts definition from school or work
Haemophilus influenzae B (Hib)	Exclude until medical certificate of recovery is received.	Not excluded. Contact public health authorities regarding need for preventative antibiotics for family and child-care contacts.
Hand, foot and mouth disease	Exclude until all blisters have dried.	Not excluded
Head lice (pediculosis)	Exclude until the day after appropriate treatment has commenced.	Not excluded
Hepatitis A (infectious hepatitis)	Exclude for seven days after onset of jaundice or illness and receipt of a medical certificate.	Not excluded
Hepatitis B	Exclusion is NOT necessary	Not excluded
Hepatitis C and D	Exclusion is NOT necessary	Not excluded
Herpes simplex type 1 (cold sores or fever blisters)	Exclusion is NOT necessary	Not excluded
Impetigo (school sores)	Readmit when sores fully healed or if appropriate treatment being applied and exposed sores are fully covered with occlusive dressings.	Not excluded
Legionnaire's disease	Exclusion is NOT necessary	Not excluded
Leprosy	Exclude until approval to return has been given by the appropriate health authority.	Not excluded
Measles	Exclude from non-immunised persons for at least four days after the onset of the rash or until a medical certificate of recovery is produced. A notifiable disease, suspected cases must be seen by a doctor to confirm diagnosis, Disease Control Centre must be notified.	Immunised contacts not excluded. Non-immunised contacts should be excluded for fourteen days for first day of appearance of rash in the last case. If non-immunised contacts are vaccinated within seventy-two hours of contact with index case, they may return to school.

Common Infectious Diseases

Disease or condition	Exclusion of case definition from school or work	Exclusion of contacts definition from school or work
Meningitis (Bacterial)	Exclude until well. If Hib refer above.	Not excluded. Contact public health authorities regarding need for preventative antibiotics for family and child-care contacts.
Meningococcal meningitis	Exclude until well	Not excluded
Mumps	Exclude for nine days or until swelling goes down (whichever is sooner).	Not excluded
Poliomyelitis	Should be excluded for at least fourteen days from onset. Readmit on medical certificate of recovery.	Need not be excluded, non-immunised contacts should be directed to health clinic.
Psittacosis (ornithosis)	Exclusion NOT necessary	Not excluded
Ringworm, trachoma, fleas, worms	Readmit when appropriate treatment has commenced, supported when requested by medical certificate. Ringworm: readmit when exposed areas are treated and covered with dressing.	Not excluded. Close contacts should be inspected regularly for signs of infestation or infection.
Ross River virus (epidemic polyarthritis – EPA)	Readmit on receipt of medical certificate of recovery, or on subsidence of symptoms.	Not excluded
Rotovirus infection	Readmit on receipt of medical certificate of recovery or diarrhoea or vomiting has ceased.	Not excluded
Rubella (German measles)	Exclude until fully recovered or for at least four days after the onset of the rash.	Not excluded. Note female staff of childbearing age should ensure that their immune status against rubella is adequate.
Scabies	Readmit after completion of the first treatment (twenty-four hours) treatment should be repeated after one week.	Not excluded
Scarlet fever (see streptococcal infection)		

Common Infectious Diseases

Disease or condition	Exclusion of case definition from school or work	Exclusion of contacts definition from school or work
School sores (see impetigo)		
Shigella infection	Exclude until diarrhoea has ceased.	Not excluded
Streptococcal infection (including scarlet fever)	Should be excluded until person has received antibiotic treatment for at least twenty-four hours and the person feels well.	Not excluded
Thrush (candidiasis)	Exclusion is NOT necessary	Not excluded
Toxoplasmosis	Exclusion is NOT necessary	Not excluded
Tuberculosis (TB)	Exclude until medical certificate is produced from appropriate health authority.	Not excluded
Typhoid and paratyphoid fever. (Refer also overseas student protocol.)	Readmit on production of medical certificate from appropriate health authority following three negative faecal and urine cultures taken at least twenty-four hours apart, commencing at least seventy-two hours after cessation of specific therapy.	Not excluded unless appropriate health authority considers exclusion to be necessary.
Viral gastroenteritis (viral diarrhoea)	Exclude until diarrhoea ceases	Not excluded
Warts (common, plane and plantar)	Exclusion is not necessary	Not excluded
Whooping cough (pertussis)	Should be excluded for two weeks from onset of illness or after taking antibiotics for five days and until medical certificate stating that the child is no longer infectious.	Exclude non-immunised contacts under five years from school for fourteen days or until they have been on antibiotic treatment for at least five days of a minimum fourteen-day course of antibiotics.
Worms	Exclusion is NOT necessary	Not excluded

Food Safety Guidance

There is no evidence that any human cases of avian influenza have been acquired by eating poultry products. Influenza viruses such as H5N2, H7N2, and H5N1 are destroyed by adequate heat, as are other foodborne pathogens. Consumers are reminded to follow proper food preparation and handling practices, including:

- Cook all poultry and poultry products (including eggs) thoroughly before eating. (This means that chicken should be cooked until it reaches a temperature of 180 degrees Fahrenheit, throughout each piece of chicken.)
- Raw poultry always should be handled hygienically because it can be associated with many infections, including salmonella. Therefore, all utensils and surfaces (including hands) that come in contact with raw poultry should be cleaned carefully with water and soap immediately afterwards. The World Health Organization has developed food safety guidance for the current situation. This is available at;
http://www.who.int/foodsafety/fs_management/No_02_Avianinfluenza_Dec04_en.pdf

Good Hygiene

The number one method for controlling infectious diseases is regular “HAND WASHING”

Did You Know?

1,000 times as many germs spread from damp hands than dry hands.

Other Personal Hygiene Tips

- If you are ill, especially with any gastrointestinal problems, avoid handling foods for others.
- Cover all cuts, burns and sores and change dressings regularly - pay extra attention to any open wounds on hands and arms.
- Avoid working in the kitchen in soiled clothing - when cooking, use a clean apron but don't use it to wipe your hands on.
- If you are preparing lots of food - for a family meal perhaps - take off your watch, rings and bracelets as well as washing your hands and wrists before you start.
- If you wear a ring there could be as many germs under it as there are people in Europe. Millions of germs can also hide under watches and bracelets.
- Don't brush or comb your hair when you are in the kitchen or near food.
- A 1mm hair follicle can harbour 50,000 germs.

Don't cough, sneeze, spit or smoke near food and avoid touching your nose, teeth, ears and hair, or scratching when handling food.

Antiviral Drugs

Type 1

M2 Inhibitors – Amantadine and Rimantadine

Only effective against influenza A and not B Teratogenic.

Treatment: Must be given within 48 hours of showing symptoms, will shorten the duration of symptoms by about one day, reduces viral shedding, and does not reduce complications.

Prophylaxis: 70 – 90 percent effective in preventing human influenza A, some avian influenza A H5N1 is resistant to M2 inhibitors.

Type 2

Neuraminidase Inhibitors – Oseltamivir and Zanamivir

Active against both influenza A and B (including H5N1)

No resistance / few side effects / not teratogenic / can be used for children (not licensed for this use in the USA)

Treatment: if used within 48 hours of symptoms, reduces length of illness, reduces complications up to 24%, Antibiotic use, best if =< 6 hours between applications.

Prophylaxis: about 80 percent effective in preventing influenza. Currently used for close contact personnel for H5N1 cases and health care workers, Oseltamivir is approved for prophylaxis, Zanamivir not approved for prophylaxis in all countries.

Pandemic: will be used to try and slow down spread of infections or during infectious period.

Safety Information – <http://www.tamiflu.com/safety.asp>, <http://www.fda.gov/cder/news/releaza/default.htm>

Type 2 – TAMIFLU (TAM-ih-flew) is indicated for the treatment of influenza in patients 1 year and older who have had symptoms for no more than 2 days. TAMIFLU attacks the influenza virus (the flu) and stops it from spreading inside your body. TAMIFLU treats flu at its source by attacking the virus that causes the flu, rather than simply masking symptoms. TAMIFLU is generally well tolerated. One out of 10 people may experience mild-to-moderate nausea or vomiting. Taking TAMIFLU with food may reduce the potential for these side effects. Other less common side effects may include bronchitis, sleeplessness and vertigo. As soon as you feel the sudden onset of flu symptoms, visit your doctor (within 2 days) and ask if TAMIFLU is right for you.

TAMIFLU is also indicated for the prophylaxis of influenza in adults and adolescents 13 years and older. In prophylaxis studies adverse events were qualitatively similar to those seen in the treatment studies, despite a longer duration of dosing. The most frequently reported adverse events were headache, fatigue and nausea.

There is no evidence for the efficacy of TAMIFLU in any other illness other than influenza types A and B. Treatment efficacy in high-risk patients has not been established, and there were no differences in the incidence of complications between treatment and placebo groups in this population. The safety and efficacy of repeated treatment or prophylaxis courses have not been established. Patients with severe influenza-like illnesses, especially patients with chronic medical conditions, may have bacterial infections instead of, or in addition to, viral illnesses. The efficacy of TAMIFLU in reducing the incidences of secondary illnesses in elderly subjects and in patients with chronic cardiac/respiratory diseases has not been established.

Type 2 – RELENZA (zanamivir) FDA has approved Relenza (zanamivir), an anti-viral drug, for persons aged 7 years and older for the treatment of uncomplicated influenza virus. This product is approved to treat type A and B influenza, the two types most responsible for flu epidemics. Clinical studies showed that for the drug to be effective, patients needed to start treatment within two days of the onset of symptoms. The drug seemed to be less effective in patients whose symptoms weren't severe or didn't include a fever.

Relenza is a powder that is inhaled twice a day for five days from a breath-activated plastic device called a Diskhaler. Patients should get instruction from a health-care practitioner in the proper use of the Diskhaler, including a demonstration when possible. Relenza has not been shown to be effective, and may carry risk, in patients with severe asthma or a lung condition called chronic obstructive pulmonary disease. Some patients with mild or moderate asthma experienced bronchospasm (marked by shortness of breath) after using Relenza.

Some patients have had bronchospasm (wheezing) or serious breathing problems when they used Relenza. Many but not all of these patients had previous asthma or chronic obstructive pulmonary disease. Relenza has not been shown to shorten the duration of influenza in people with these diseases. Because of the risk of side effects and because it has not been shown to help them, Relenza is not generally recommended for people with chronic respiratory disease. Anyone who develops bronchospasm worsening respiratory symptoms such as wheezing and shortness of breath should stop taking the drug and call their health-care provider. Patients with underlying respiratory disease should have a fast-acting inhaled bronchodilator available when taking Relenza.

Relenza is not approved for use in prevention of influenza (prophylaxis) and is not a substitute for influenza vaccine.

NIST – Decision Making Matrix

Infectious Disease Decision Making Matrix – based on current information available from WHO, CDC and International SOS										
Levels are defined by the presence of the following indicators within the Thai environment	Campus Access Control	Education Delivery	Circulation on Campus and Activities	NIST Community Events	Field Trips and International Travel	School Provided Transportation	School Operations	NIST Personnel	Emergency Care	Communication
Level 1 (Information – Low Risk) <ul style="list-style-type: none"> No Human Cases Low Number (1-50) of reported cases 	Admission as normal	Regular school program	All regular scheduled events are allowed	All regular scheduled events are allowed	Field trips allowed must be approved by Headmaster	All bus routes run as normal	Cleaning of facilities to be increased Food service as normal	Normal working conditions	Normal emergency medical protocols	Use of NIST news Careful review of WHO, CDC, SOS and Embassies for advice
Level 2 (Precautionary – Moderate Risk) <ul style="list-style-type: none"> Very limited human cases (less than 50), leading to death. Increasing number of "possible" cases reported (50+) No NIST students, Families, Employees or NIST community identified with virus Average student attendance remains high, 90-100% Knowledge of virus behavior remains unchanged Advisories for non-essential travel to infected areas 	Admission as normal Students displaying symptoms; Parents will be notified to collect student to take home with recommendation to see doctor immediately Step up pest control procedures.	Regular school program Homework via e-mail provided for quarantined students	All regular scheduled events are allowed	All regular scheduled events are allowed	Field trips scrutinized and cancelled if considered unsafe	All bus routes run as normal	Cleaning of facilities to be increased Consider increasing cleaning frequencies Removal of food products from menu Advise student and staff good hygiene habits	Emergency meeting of SMT Meet with health officials to confirm status of infection Normal working conditions All staff are reporting to work Raise level of information to staff and community	Normal emergency medical protocols	Use of NIST news Careful review of WHO, CDC, SOS and Embassies for advice Student assemblies to ensure students understand protocols and hygiene Up-date NIST website regularly Press release from Headmaster only
Level 3 (Action – Medium Risk) <ul style="list-style-type: none"> Increase in Human cases (50+) leading to death Increased spread of virus Average student attendance below 90-80 % Increased evidence of travel and access restriction, both local and international New knowledge of virus behavior emerges 	Students displaying symptoms; Parents will be notified to collect student to take home with recommendation to see doctor immediately Visitors to campus checked visually and questioned Close monitoring of NIST staff Consider issuing face masks Campus locked down by 3.00pm	Regular school program Homework via e-mail sent to students in quarantine	All regular scheduled events are allowed Large gatherings other than NIST students and staff not allowed Consider cancellation of community activities	Consider cancellation of special events and community activities	No field trips permitted	All bus route run as normal, No late buses Any student with flu symptoms not permitted on bus	Stepped-up manual cleaning and disinfecting Increase cleaning staff Consider professional disinfecting	NIST school Board calls an emergency meeting to determine how school is to continue	Use only hospitals rated highly for proper virus prevention, contamination and quarantine procedures Hospital list provided to NIST community	Use of NIST news Careful review of WHO, CDC, SOS and Embassies for advice Student assemblies to ensure students understand protocols and hygiene Consider the use of emergency communications Up-date NIST website daily
Level 4 (Mobilization – High Risk) <ul style="list-style-type: none"> Pandemic Spread of virus within NIST community Virus cases exceed 400-500 with multiple deaths Advisories suggest the closure of schools Travel restrictions evident both locally and international Staffing and attendance issues 	School Closed	e-mail and NIST portal where possible						Consider changing calendar to make up lost days		Up-date NIST website daily if possible Via e-mail SMS Phone