"Caring for Children and Adolescents with Influenza and Other Respiratory Virus Infections at Home and Their Prevention"

Joint appeal to parents, children, pregnant women, chronically ill or elderly people and their caregivers by

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Route of transmission and the **incubation period** of influenza and other respiratory virus infections:

Influenza and other respiratory virus infections can be spread through **airborne**, **droplets** and **contact**. **Symptoms** of influenza and other respiratory virus infections **can appear two to eight days** after exposure to the viruses.

Symptoms of Influenza and other respiratory virus infection:

The main symptoms of influenza and other respiratory virus infections are **fever**, **cough**, **runny nose**, **sore throat**, **chills and rigors**, **nausea, vomiting**, **diarrhea**, **malaise**, and **headache**.

Influenza virus and other respiratory viruses may cause severe respiratory infection. If it invades the lungs, it may cause "**Acute Pneumonia**". Patients will have difficulty breathing leading to cyanosis and shortness of breath. "**Acute Encephalopathy"** is a serious neurological condition because of the viral invasion into the central nervous system and the subsequent inflammatory responses it triggers. The symptoms include seizures and disturbance of consciousness with rapid deterioration, and patients may rapidly progress to a coma status and death. Even if patients may fortunately recover, there will be extensive multiple organ damage and life-long neurological deficits, which require prolonged treatment and rehabilitation therapy. On some occasions, Influenza and other respiratory virus infections will cause "**Myocarditis**", which is inflammation of the heart muscles, which may be fatal.

Based on the current scientific literature, **high-risk groups** (including **infants, young children, pregnant women, the elderly, people with chronic diseases, and people with congenital or acquired immunodeficiency**) are prone to severe illness, hospitalization, and even intensive care unit admission, and some unfortunately died after being infected with the influenza virus. Children have frequent and close social contacts and group activities in school and the community, which can easily disseminate influenza and other respiratory viruses, it is also well recognized that they can bring the virus back home to infect high-risk household members.

<u>Recommendations on Caring for Children and Adolescents with Influenza and Other Respiratory Virus Infections At Home</u>:

1. <u>Onset of the symptom(s) of infection</u>:
   - Parents/carers need to **record the date and time when the child starts to have symptom(s) of infection**, allowing for assessment of the condition.

2. <u>Regular observation</u>:
   - **Measure and record** the child's **body temperature**.
   - Record the **amount of oral fluid and food intake** and the **frequency of urination and bowel movements**.
   - Be aware of **any new symptoms** such as cough, runny nose, sore throat, malaise, vomiting, etc.
   - **Be highly alert** to **any symptoms indicating deterioration** in the child's condition, such as pallor, difficulty in breathing and/or confusion.
   - The chart below lists the **average resting heartbeat and respirations** for different age groups.

Age	Heart rate / minute	Age	Respiratory rate / minute
Newborns 0 to 1 month old	100-190	Newborns	30-60
Infants 1 to 11 months old	90-160	Infants 1 to 11 months old	30-60
Children 1 to 2 years old	80-130	Children 1 to 2 years old	24-40
Children 3 to 4 years old	80-120	Children 3 to 5 years old	22-35
Children 5 to 6 years old	75-115	Children 6 to 12 years old	18-30
Children 7 to 9 years old	70-110	Children 13 to17 years old	12-16
Children 10 years and older	60-100		

3. <u>Measure and record **body temperature**</u> (Normal body temperature is 36.5 - 37.5°C).
   - Use an ear (tympanic) thermometer and **record the child's temperature every four hours**.
   - Feeling the forehead as a form of temperature measurement is extremely inaccurate and unreliable.
   - The parents / carers may use an **appropriate dose** of paracetamol to relieve fever, headache, and sore throat in the child.

4. <u>Food, fluid intake and rest</u>:
   - Maintain a **healthy lifestyle** by eating more fresh vegetables and fruits, drinking more water, and maintaining regular exercise.
   - Remember to have **adequate rest and sleep**. All these can enhance the body's immunity to fight against Influenza and other respiratory viruses.

5. <u>Children's Personal Hygiene</u>:
   - The parents / carers and the child should **stay at home** and away from other family members.
   - **Parent/Carer must wear a surgical mask** and **help the child to wear an appropriate-sized mask** to reduce the possibility of cross-infection.

     - ✧ According to recommendations by the Centers for Disease Control and Prevention, **children 2 years and older** can wear surgical masks to protect themselves and others from influenza and other respiratory virus infections.
     - ✧ The mask must cover both the mouth and nose tightly.
     - ✧ After use, the surgical masks should be folded and disposed of in a covered rubbish bin. Remember to clean both hands thoroughly after disposal.
     - ✧ Carers of individuals with chronic illnesses and disabilities should assess their suitability for wearing a surgical mask, considering the following:

       - ■ The person’s self-care ability;
       - ■ Whether wearing a surgical mask restricts their breathing and sucking ability;
       - ■ Whether there is too much drooling of saliva on the surgical mask which affects breathing;
       - ■ In an emergency, whether an individual can remove the surgical mask immediately without assistance, or a caregiver be available to assist in removing the surgical mask immediately.

   - **Teach the child to observe personal hygiene** and wash his/her hands frequently. Wash both hands with soap and running water for at least 20 seconds before and after eating, after using the toilet, or after touching soiled objects. Remember to clean the fingers, thumbs and wrists as well.

     - ✧ If the environment does not allow hand washing and the hands are not visibly dirty, the parent/carer and child should clean the hands using a 70-80% alcohol-based hand sanitizer (please be reminded that alcohol is less effective in disinfecting non-enveloped viruses, such as rhinovirus, enterovirus and adenovirus).
     - ✧ Avoid touching the eyes, nose, and mouth before thorough hand washing.

   - Toilets used by the child should be regularly cleaned with 1:49 diluted household bleach.
   - Teach the child to cover his/her mouth and nose with tissue paper when coughing or sneezing, and then carefully dispose of the tissue in a covered rubbish bin, followed by cleaning his/her hands thoroughly.

6. <u>Home hygiene</u>:
   - **Maintain good ventilation at home**. Open more windows because good ventilation can effectively carry the virus in the air out of the room. A HEPA filter is useful for filtering the virus.

- The child should have personal cutlery, drinking glasses, mouthwash cups, toothbrushes, and towels. Children with influenza and other respiratory virus infections should not share personal items with other children or adults.
- Clean your home daily with 1:99 diluted household bleach.
- Use 1:49 diluted household bleach to clean the child's toys thoroughly every day. Objects contaminated with the child's secretions while sneezing or coughing should be disinfected with 1:49 diluted household bleach.
- Ensure that the U-shaped drain is filled with water regularly to prevent the spread of the virus.

7. Natural course of influenza and other respiratory virus infections:

- Parents/carers should stay calm as most children with influenza and other respiratory virus infections will eventually recover. The fever will last for about 2 to 3 days, and other symptoms will usually subside within a week.
- Please follow the doctor's advice in taking anti-viral medication, it should be administered as soon as possible, preferably within 48 hours after the onset of symptoms, to achieve maximum efficacy in reducing disease severity.
- If the fever and other symptoms persist, consult your family doctor for further advice.

8. What are the **warning signs** requiring immediate medical attention?

- **Call an ambulance to the hospital at once** if the child develops **breathing difficulty**, **blue lips**, **chest pain**, **fast heartbeat**, **sudden change of sensorium or confusion**, **persistent high fever**, **poor oral intake**, or **convulsion**.

9. Vaccination Against Influenza Virus Infection:
In addition to maintaining good personal and environmental hygiene habits. **Getting vaccinated against influenza is the most effective way to prevent severe illness and hospitalization after influenza infection**. It is necessary for high-risk individuals to receive seasonal influenza vaccination to prevent severe illness and hospitalization after influenza virus infection. Vaccination can also greatly reduce mortality or the sequelae even after recovery.

Infants, young children, and teenagers are not only important members of every family, but also the main pillars of the future of our society. **We absolutely care and value the precious value of every child and have the responsibility to protect their health and enable them to thrive**. Parents and caregivers should value the benefits of vaccination from a scientific perspective. **Vaccination is to protect the health and lives of infants, young children, and adolescents**. Scientific data have proved that seasonal influenza vaccines are clinically very effective, and serious adverse vaccine reactions are rare. We sincerely appeal to members of the public, especially parents and caregivers, to vaccinate infants, young children, and adolescents with the 2025/26 seasonal influenza vaccine as soon as possible to prevent the current epidemic of influenza. If you have any questions, please consult your family doctor.

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