INTRODUCTION

Influenza infection is responsible for an average of 114,000 hospitalizations and 20,000 deaths annually in the United States alone. The primary consensus recommendation of the CDC (Centers for Disease Control), American Lung Association, and the WHO (World Health Organization) to address seasonal influenza for susceptible persons is to get the annual flu vaccination; unfortunately, supplies are almost always short of demand. Furthermore, there is no guarantee that the vaccine will immunize the patient for the particular strain that is active in a given year. Vaccines are prepared prior to the flu season based on a "best guess" prediction of which strain will pose the most significant threat for that particular season. The problem is clear; in TCM, we believe we have answers and we can help.

The America Lung Association declares that: "Antivirals, when started within 2 days after flu symptoms appear, can reduce the duration of the illness and the severity of the symptoms."¹ The Materia Medica of Chinese medicine has many scientifically-confirmed antivirals, some of the most powerful of which are found in popular patent formulas such as Gan Mao Ling, Yin Chiao San, Zhong Gan Ling, and proprietary formulas, such as Golden Flower Chinese Herbs' Viola Clear Fire Formula. Timely, proper administration of these and other formulas can successfully shorten the course of colds or flu and significantly reduce the symptoms caused by these viruses.

The treatment of externally contracted disease has one of the largest formularies among the many branches of Chinese medicine. This phenomenon, in no small way, is a testament to the influence of the Shang Han Lun as a seminal text of herbal prescriptive medicine in China; but more significantly, it reflects the astonishing complexity and diversity that the course of these pathogens can take when they have broken through the body's defenses and established themselves within. No other disharmony approaches the dynamism and variety of external pathogens as they move and lodge, transform and linger, intensify and diminish through and within the body's systems of channels, organs, stages, levels, and burners (as we are accustomed to classify them.)

For the clinician, the importance of understanding the nature of externally contracted (or externally triggered) disease is evident in the fact that a significant portion of the Shang Han Lun is devoted to formulas designed to remedy a situation made worse by the administration of improper formulas at an earlier stage of damage. In such cases, if the pattern had been identified correctly initially, the complications would not have developed. The consequences of contracting an external pathogen can range from a stiff neck and runny nose to pneumonia, coma, and death; the course can last from a couple of hours to a lifetime. It is obvious that it is far beyond the scope of any quick reference guide to give a comprehensive treatment of this subject. Fortunately, colds and flu (that is, "the common cold" and "influenza") represent only a small portion of these externally contracted diseases and much has been learned in the modern era to assist our choice of formulas.

COLD OR FLU? – A BIOMEDICAL MODEL²

Bio-medical science has learned that colds and flu, though

By Dr. John Heuertz, DOM

sometimes indistinguishable from one another in their clinical manifestations, are caused by two different classifications of virus. There are over 100 different cold viruses, the rhinoviruses causing approximately 50% of all infections. Conversely, there are only 3 major types of influenza virus: A, B, and C. The A type has either an H or an N antigen component attached and these can undergo slight and major modifications known as "drift" and "shift" respectively. The major "shifts" occur only about once per decade; "drifting" occurs about once a year and is largely responsible for the annual nature of the flu season. The mutation occurring in a drift is sufficient to disallow a pre-immunity to the new version of the same strain. It is therefore possible to be infected annually by the same antigen type and for the older versions to remain in circulation for many years. You are not immune until you have developed the antibody for a specific drift.

Though sometimes very similar, the flu is, in general, more severe than the common cold and is attracted to a somewhat different sort of tissue than the common cold. The cold virus attacks the nose (see "etiology below) and remains a respiratory disease; the flu virus prefers the lung itself. And can affect the whole body. The difference in their affinities is one of the reasons that the flu tends to be more severe than a cold; since the lungs are a vital organ with exposure to external pathogens, the potential damage is more serious and the defense system requires greater intensity.

Certain groups have been determined by the CDC and WHO to be at high risk for influenza developing into serious complications. Those groups are mainly:

• Ages 6-23 months, and over 65

• People with chronic lung disease such as asthma, emphysema, chronic bronchitis, bronchiectasis, tuberculosis, or cystic fibrosis

People who have heart disease

• People who have chronic metabolic disorders such as diabetes

People with severe anemia

• People undergoing treatments which suppress immunity

FACTS ABOUT THE FLU VACCINE

Biomedical epidemiologists strongly recommend flu vaccines to most groups. Both the CDC (Center for Disease Control) and the WHO (World Health Organization) strongly encourage the vaccination except for people who have an anaphylactic allergic reaction to eggs, and those who have previously developed Guillain-Barre Syndrome (GBS). Health care practitioners, especially those providing care for patients in the "high risk" categories are encouraged to get vaccinated in order to prevent becoming carriers. Most people for whom the vaccine is recommended do not have reactions to it. When reactions occur, the person might develop slight fever, muscle aches, or a generalized unwell feeling within the first 24 hours.

The flu vaccine is made from and inactive virus and the official consensus of bio-medicine is that you cannot "catch" the

^{1.} American Lung Association, Cold and Flu Guidlines: Myths and Facts. Available on their webite at www.lungusa.org

²The biomedical information found in this section was compiled from published materials from the World Health Organization, The American Lung Association, and the Centers for Disease Control. All materials are available online at the respective websites.

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Symptoms	Cold	Flu 🐧
Fever	Not common, usually less than	Characteristic, high, 102-104 F,
	101.5 F	lasting 3-4 days
Headache	Not common	Prominent
Loss of appetite	Common, but usually mild,	Characteristic, pronounced
Generalized aches and pains	Mild	Can be severe
Fatigue/weakness	Slight	Can be extreme, lasting up to 3
		weeks
Extreme exhaustion	Never	Early, pronounced, and can linger
		for days
Stuffy nose and/or blocked	Common	Occasional
sinuses		
Sneezing	Almost always	Occasional
Sore throat	Common	Occasional
Chest discomfort and cough	Mild to moderate; cough is	Common, can become severe and
	usually hacking	manifest as several different type
		of cough
Duration	Mild- 2-3 days; Average- one	Commonly 2-5 days, can linger
	week; Severe- up to two weeks	for up to three weeks
Incubation	8-12 hours	1-4 days after exposure
Etiology	Virus contacts the front of the	Influenza enters the respiratory
	nasal passage by contaminated	tract and eventually strikes the
	fingers or by droplets spread by	lungs where tissues become
	an infected person's cough or	inflamed and swollen, body
	sneeze. Virus is transported to	reacts with "flu-like" symptoms.
	adenoid area by the nose where it	
	attaches to a special receptor and	
	is taken into the cell where it is	
	replicated. Once in adenoids,	
	virus can affect bronchial tubes,	
	sinuses and ear. Symptoms	8
	occurs as part of the body's	
	immune response.	
Contagious phase	Form 24 hours before onset of	Adults are contagious from 1 day
	symptoms up to 5 days after	before symptoms appear and up
	symptoms appear.	to 3-7 days after symptoms
	501/0 37/97 #800010	appear; Children can be
		contagious up to one week after
		fever disperses
Frequency	Adults: 2-3 per year; Children: 6-	Usually 1 per year, but can
	10	contract each of the two A-types
		and a B-type annually. C-type is
~ ~ ~		rare
Complications	None serious., but some	Bronchitis, pneumonia, death
	secondary problems may occur	
	including ear aches, sinus	
	congestion	
Prevention	Universal precautions: h and	Annual vaccine, limiting contact
	washing, avoid touching your	with infected persons
	eyes, nose, and mouth, etc, no	
	close contact with infected	
	persons	
Treatment	Rest, plenty of fluids, avoid	One of five prescriptive antiviral
	alcohol, tobacco, and stress, take	medications, over-the-counter
	over-the-counter medications to	symptom-relief medicines
	relieve symptoms	1

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flu from the vaccine. People who develop symptoms after immunization, whereas they may be reacting to the vaccine, are not actually suffering from the flu itself, which is thought to be impossible from an inactivated virus. Their "flu-like" symptoms are considerably more mild and of a shorter duration than if they had developed the virus. This is thought to be an autoimmune reaction, an adjustment the body makes while it has been stimulated to develop the antibody by the vaccine.

RECOMMENDED PREVENTATIVE STRATEGIES FROM BIO-MEDICINE

The main way that illnesses like colds and flu are spread is by respiratory droplets. The source of these droplets is mainly coughs and sneezes, but it is important to understand that the infected person does not have to be in the room at the same time as another person in order to spread the infection. Many forms of these viruses can live on surfaces such as tabletops, doorknobs and telephone receivers for up to 2 hours. If you have contacted a surface with a live virus, all that is needed for you to become infected is for you to touch your eyes, nose, or mouth before you have properly washed your hands.

There are a number of common sense (and perhaps not-socommon sense) precautions one can take to reduce the spread of infection. These precautions should be observed by everyone.

The main categories of prevention are:

1) Cover your nose and mouth when you sneeze.

The best way to cover your mouth and nose whenyou cough is with a disposable tissue. Discard the tissue immediately in a proper receptacle and wash your hands after discarding. If no tissue is available, please note that sneezing into your hands is one of the worst options you have. Hands contact more surfaces in the environment than any other part of our bodies and will spread the germs almost as readily as sneezing or coughing without covering your mouth. If you do not have a tissue or anything you can sneeze into and throw away, the latest recommendation from epdemiologists is to sneeze into the upper part of your sleeve near your shoulder. The material of your clothing is usually absorbent; the upper sleeve is convenient for that sudden urge to sneeze or cough; and other people are far less likely to have contact with your upper sleeve than with your hands. When traveling during flu season you should always bring along some tissues, just in case.

2) Clean hands often.

We say "cleaning" your hands rather than "washing" your hands because running water is not always available, especially if you are traveling. Alcohol-based hand cleaners are now commonly found in most stores that sell pharmaceuticals or toiletries. These have been shown to be effective in keeping hands free from germs. The correct hand-washing procedure, according o the CDC is to:

- First wet hands and apply liquid soap or clean bar soap. If using bar soap, replace it on a rack which allows it to drain.
- Next rub hands together vigorously, scrubbing all contours of the surface.
- Continue for 15-20 seconds.
- Rinse well and dry hands with forced warm air or disposable paper towels.

3) Keep immune system strong.

Keeping the immune system strong can mean the difference

between almost getting sick and developing full-blown symptoms; it can also influence the duration and severity of the illness. The CDC recommends getting plenty of sleep, staying physically active, drinking plenty of water, and eating a healthy diet to keep your immune system strong. [See PART 2 for traditional Chinese herbal formulas that can boost the immune system. Traditional medical wisdom also recommends qi gong practice or other forms of meditation to keep healthy.]

4) Teach entire household to observe germ-prevention habits.

The final strategy is to make sure everyone in the household understands and follows the precautions. These precautions promote a safe living environment. It is especially important to teach these precautions to children. Most of the details can be understood by children as young as 2 years old with proper instruction, repetition and supervision from parents.

PART II: TRADITIONAL CHINESE MEDICAL MODEL

"Simple" Wind-Cold and Wind-Heat patterns are normallyly thought to enter the body via the pores of the skin due to a relative weakness of the wei qi compared to the relative strength of the pathogenic factor. The entry point is usually in the area of the throat and neck for pathogens that develop into respiratory infections. These can be expelled by exterior-releasing formulas successfully.

On the other hand, Warm Disease, according to theories set forth by the Wen Bing School (Warm Disease School), enter the body via the nose and mouth and cannot be released simply by venting them with pungent, surface-relieving herbs. (It was a great breakthrough for the Wen Bing School that they were able to determine that pathogens can be spread from infected human to infected human. Many cases of the flu belong to the Warm Disease category. With Warm Disease, fevers tend to be higher, and there is a tendency for the heat to dry body fluids and damage the yin.

There are usually more stages involved in treating Warm Disease or severe Wind-Heat over simple Wind-Heat or Wind-Cold patterns. While heat signs are prevalent, clearing heat, fire and toxin should be a part of the strategy, in addition to addressing prominent symptoms such as cough, or body aches. During remission and recovery, clearing latent fire and support of yin may become necessary.

PREVENTATIVE STRATEGIES

There are two basic proactive strategies Chinese herbal medicine provides against the development of an infection of influenza or the common cold. The first is to boost the wei (protective) qi BEFORE exposure; the second is to prevent an exposure from developing into an infection. If exposure has already occurred or is believed to have occurred but no symptoms have yet developed, you can choose formulas from the "release exterior" category, or you can simply prescribe one of the modern Chinese formulas developed for their anti-viral properties. (See "Strategies to Treat Active Infections" for anti-viral formulas.)

Jade Windscreen Formula (Yu Ping Feng San) has a strong action to fortify the body's defenses PRIOR to exposure or before symptoms have manifested. Because astragalus root (huang qi) consolidates the exterior, this is an excellent formula for people who tend to get frequent wind-cold infections or allergic symptoms when there is constitutional wei qi deficiency; the same action to consolidate the exterior can be counter-productive if the symptoms have already become pronounced. The other two ingredients, siler root *(fang feng)* and atractylodes rhizome (bai zhu) make Jade Windscreen Formula especially useful to prevent wind-cold and wind-cold-damp pathogens. It is safe to take this formula throughout cold and flu season or allergy seasons, as long as there are no pronounced symptoms at the time.

Jade Screen and Xanthium Formula (Yu Ping Feng Jia Cang Er San) adds to Jade Windscreen Formula a strong action to dry dampness, reduce swelling, clear heat, and improve blood circulation in the sinuses. It can be used preventatively prior to exposure or even after the onset of symptoms. Jade Screen and Xanthium Formula is most effective preventatively when the patient is prone to nasal and sinus symptoms; and symptomatically when the nasal discharge has a clear or white color.

Astagalus and Ligustrum Formula (*Huang Qi Dong Qing Pian*) is based upon *fu zheng* therapeutic principles for patients who suffer from an immune deficiency with a kidney component such as AIDS Related Complex (ARC), or patients undergoing chemotherapy or radiation treatment. This formula builds white blood cells to strengthen the immune system. Due to the tonic nature of this formula it should only be taken to strengthen the immune system BEFORE an immune response has been triggered by a virus entering the body.

STRATEGIES TO TREAT ACTIVE INFECTIONS

During an active viral infection it is beneficial to approach the treatment relentlessly. Most formulas that treat viral infections are active in the body for about 4 hours, reaching their highest concentration approximately 2 hours after administration. If a dose (2-4 tabs, depending on body weight and severity of infection) is taken every 2 or 3 hours, a consistent level of attack can be maintained, allowing the virus little chance of revitalization and shortening the duration of the illness. In addition to a well-designed herbal protocol, it is recommended to drink plenty of fluids, rest and abstain from alcohol, tobacco, and phlegm-producing foods such as sweets and dairy.

Pueraria Formula *(Ge Gen Tang)* is a great formula to have on hand during the first signs of a wind-cold invasion of the tai-yang aspect. It is beneficial for you and your patients to keep in on hand at home before exposure, since it works best during the first few hours of the initial stage of a wind-cold invasion. Educate your patients to monitor the signs of stiffness in the neck or upper back, the beginnings of generalized body aches and aversion to wind and/or cold with absence of sweating (low-grade fever may or may not be present.) If taken when the above signs are first observed, Pueraria Formula can effectively eliminate the symptoms and guide the wind-cold out of the body within a few hours.

Gan Mao Ling Formula *(Gan Mao Ling Pian)* is a modern formulation of Chinese herbs chosen for their anti-viral properties. The antiviral herbs are cold; persons with a strong or yang constitution can safely use Gan Mao Ling Formula after suspected exposure but prior to onset of symptoms in order to kill the virus before it has an opportunity to fully engage an immune response. Patients with very weak or pronounced cold constitutions should reserve use of Gan Mao Ling Formula until they become symptomatic, since the cold herbs can damage the qi of the middle burner if taken without discretion.

Yin Chiao Formula *(Yin Qiao San)* was originally designed to treat wind-heat skin rashes such as chicken pox. Today it is used to treat a variety of wind-heat patterns affecting the upper body and respiratory tract with symptoms such as headache, mild fever or skin itching. It is especially indicated when a mild to moderate sore throat is part of the pattern, when the wind-heat is affecting the skin, or during the first 12

hours of onset.

Zhong Gan Ling Formula *(Zhong Gan Ling Pian)* is another modern formulation which utilizes herbs with strong anti-viral actions. Its cold nature makes it particularly affective for treating influenza with high fever. The high percentage of pueraria (ge gen) helps to release the muscle layer to alleviate body aches while the virus is being attacked. Zhong Gan Ling Formula can be used during or after the initial onset of symptoms. It is one of the strongest formulas against influenza that TCM has to offer.

Minor Bupleurum Formula *(Xiao Chai Hu Tang)* clears heat, transforms phlegm and releases pathogens from the shao yang-stage. It is used traditionally when an exterior pathogen is causing any of the following: alternating chills and fever, costal tension or distension, nausea with bitter taste in mouth. Japanese Kampo medicine prescribes Minor Bupleurum Formula to children (and adults) as a preventative for the common cold since it has anti-viral action, plus tonic and phlegm resolving action. Do not give to children under 2, whose yin can be easily damaged from dryness. (See Bupleurum and Cinnamon Formula for comparison.)

Bupleurum and Cinnamon Formula *(Chai Hu Gui Zhi Tang)* is similar to Minor Bupleurum Formula but is more appropriate when there are no heat signs. It differs also in that it is designed to be more supportive than Minor Bupleurum Formula and is therefore safer for long-term use, especially when the patient's constitution is cold. In treating colds and flu, Bupleurum and Cinnamon Formula is better for treating wind-cold, while Minor Bupleurum Formula is better for wind-heat pathogens. Bupleurum and Cinnamon Formula also has the additional function of adjusting the wei qi. Both formulas can be used to dislodge a lingering pathogen from the body.

Minor Bluegreen Dragon Formula (*Xiao Qing Long Tang*) is the formula of choice for copious amounts of white phlegm in the lungs. It is a warming and drying formula and therefore contraindicated for conditions with heat or without pronounced phlegm or dampness in the lungs. It is very effective for asthma when there are no heat signs. Using smaller doses, parents can use Minor Bluegreen Dragon Formula to treat croupy coughs in children.

Viola Clear Fire Formula *(Di Ding Qing Huo Pian)* is a safe, yet strong anti-viral formula with some anti-bacterial and anti-fungal action. It is not designed to release the exterior and is therefore more effective when used to treat heat, fire and toxin in the qi aspect of the body. The formula is quite effective against respiratory viruses, but can also be used to treat heat, fire and toxin anywhere in the body, including such tenacious viruses as HIV, Epstein-Barr Virus, and other long-term or chronic toxic infections. Use only during the active phase of the virus, i.e., when there are some signs of heat or fire present.

Xanthium Nasal Formula (*Jia Wei Cang Er Pian*). Though predominance of sinus infection is more likely to be the result of a common cold or bacterial infection rather than the flu virus, this formula is included in this list to provide further clarification of symptomatic treatments in the wind-heat category. The distinguishing symptom for which this formula is indicated is consistently yellow sinus discharge (not just first discharge of the morning).

John Heuertz, DOM is a graduate of the International Institute of Chinese Medicine and later served on their Faculty Advisory Board. He is a lecturer and research consultant for Golden Flower Chinese Herbs and the formulator of the herbal remedy Chemo Blood Support Formula. Dr. Heuertz has a private family practice in Albuquerque, New Mexico and in the nearby Jemez Mountains.