



The CBCSF Newsletter

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A Publication of Community Blood Centers of South Florida, Inc.

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Another Virus in the News: Severe Acute Respiratory Syndrome (SARS)

The recent outbreak of SARS and the variant coronavirus that causes it may have a greater impact on public health than last year's outbreak of West Nile Virus (WNV).

Coronaviruses are one of the many viruses responsible for the common cold. The just discovered variant causes Severe Acute Respiratory Syndrome or **SARS**, so named because a small but significant percentage of infected patients progress clinically to pneumonia and respiratory distress. Public health experts estimate that if the spread of the virus goes unchecked it could infect a billion people within the next 12 months. Deaths have occurred not only in chronically ill people as happened with WNV, but also among otherwise healthy children and adults with about 300 worldwide deaths reported to date. An enormous worldwide public health effort to control SARS is underway.

Outbreaks of viruses have occurred many times in human history. Smallpox epidemics are well recorded in antiquity because of the distinctive nature of that disease. The first well documented European outbreak of a "new" viral illness -- influenza -- occurred in 1557 infecting essentially the entire population of the continent. Mary Queen of Scots (1542-1587) called it her "new acquaintance". Influenza has returned many times to Europe, including pandemics in 1775 and again in 1917 in the most devastating outbreak of all. The

French called it the "Spanish Flu" because that is where they thought it arose, and it is believed to have killed 40 million people worldwide -- 4500 of them in Philadelphia in 1918 alone.

The steps being taken to control SARS are dictated by the "Precautionary Principle" articulated by Canada's Justice Horace Krever in his 1997 report on how the blood supply of Canada came to be contaminated in the 1980's with the HIV virus. Briefly put, if there is even a remote potential of an infectious agent seriously harming the public, it is the responsibility of public health authorities to act as if the threat were real and immediate and to continue to so act until good evidence is found to the contrary.

Accordingly, patients with SARS are placed in isolation, contacts are quarantined, travel to affected areas is not recommended, and people returning from affected areas are specifically warned to watch for signs and symptoms of SARS. Fearing transfusion-borne infection, blood donors are questioned about potential exposure to SARS and deferred if exposure has occurred. Scientists all over the world are studying the variant coronavirus in hopes of understanding its

biology and perhaps even developing a treatment or vaccine.

Where do "new" viruses come from?

Many viruses have multiple hosts. WNV, last year's import from the Middle East, is really a virus of birds that's spread by mosquitoes which can just as easily bite humans, horses, and other mammals. Smallpox is an exception to the multiple host rule and can only infect human beings. Mammals of many kinds can

Symptoms of SARS

- ✓ *Fever of 101° F or 38° C.*
- ✓ *Headache and discomfort.*
- ✓ *Local aches and pains.*
- ✓ *Dry cough.*

All occurring 2 to 10 days after exposure to a patient with SARS.

Community Blood Centers of South Florida
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also be hosts for cold and influenza viruses. Human populations living in close proximity with domesticated livestock and poultry are particularly susceptible to the spread of viruses from animal to man. This explains why viruses affecting humans are often given names like "Swine Flu". Similar conditions exist today in southern Asia, giving that part of the world the dubious distinction of contributing names like "Hong Kong Flu" for many of the newer viruses. The mutant coronavirus that is the probable cause of

SARS arose first in southern mainland China and spread quickly to Hong Kong, Singapore, and perhaps to the rest of the world.

SARS is Highly Contagious

Person-to-person spread occurs by inhaling airborne lung secretions or by coming in contact with larger infected droplets or saliva and then touching one's eyes, nose, or mouth.

Many of the recent cases of SARS in Toronto, Canada, have been among health care providers treating SARS patients, an indication of how infectious SARS can be to those exposed to patients' secretions. Symptoms of SARS appear 2-10 days after exposure to an infected individual and include fever, dry cough, a feeling of being unwell, body aches and headaches, and ultimately shortness of breath. The pneumonia that develops with SARS has an unusual appearance on X-rays and so is called an "Atypical Pneumonia".

The spread of the infection can be prevented only by strictly isolating SARS patients, carefully quarantining exposed contacts, and limiting travel to and from affected areas. Quarantine procedures are never

entirely effective but offer some chance of slowing the spread of the virus. Geographically based quarantines will become progressively less effective as this disease spreads more widely around the world.

What does the future hold?

There is no specific treatment for SARS. Affected patients are treated symptomatically until their immune systems ward off the virus. Symptoms usually last 10 to 20 days.

Coronaviruses are all highly mutagenic making the development of a vaccine for SARS difficult and unlikely in the short term. HIV, the causative virus of AIDS, is another highly mutagenic virus which partly explains why there is still no AIDS vaccine after 20 years of work.

The Precautionary Principle is being applied to blood donation as well. There is no evidence linking SARS

to transfusions, but all donors are already being asked if they have or have been exposed to SARS and if they have recently traveled to a SARS affected area. Deferrals range from 14 days for exposure to SARS to 28 days after recovery for those diagnosed with SARS.

And in the meantime the entire population of the world is watching to see if SARS becomes the 21st Century's first pandemic.

Important Information!

Be sure to give the registrar your email address when you register to give blood and receive these newsletters by email or via our website www.cbcsf.org. MSN or AOL users should add webmaster@cbcsf.org to their list of safe contacts.

Confidentiality Statement: Community Blood Centers of South Florida is committed to respecting your privacy. We will not share, rent, or sell personal information provided by you, including your email address, to other parties. The information you provide will only be used to support your relationship with us as a blood donor or potential donor.

Current SARS Geographic Quarantine Areas:

1. Mainland China
2. Hong Kong
3. Singapore
4. Hanoi, North Vietnam
5. Toronto, Canada
6. Taiwan

See CDC site shown at bottom left for updates.

New SARS related questions of blood donors:

1. In the past 14 days, have you traveled to, traveled through, or resided in, areas affected by SARS?
2. In the past 28 days, have you been ill with SARS or suspected SARS?
3. In the past 14 days, have you cared for, lived with, or had direct contact with body fluids of a person with SARS or suspected SARS?

Other sources of information:

United States Food & Drug Administration:
<http://www.fda.gov/oc/opacom/hottopics/sars/qsas.html>

Centers for Disease Control (CDC):
<http://www.cdc.gov/ncidod/sars/>

Krever Commission Report, 1997:
<http://www.hc-sc.gc.ca/english/protection/krever/>