

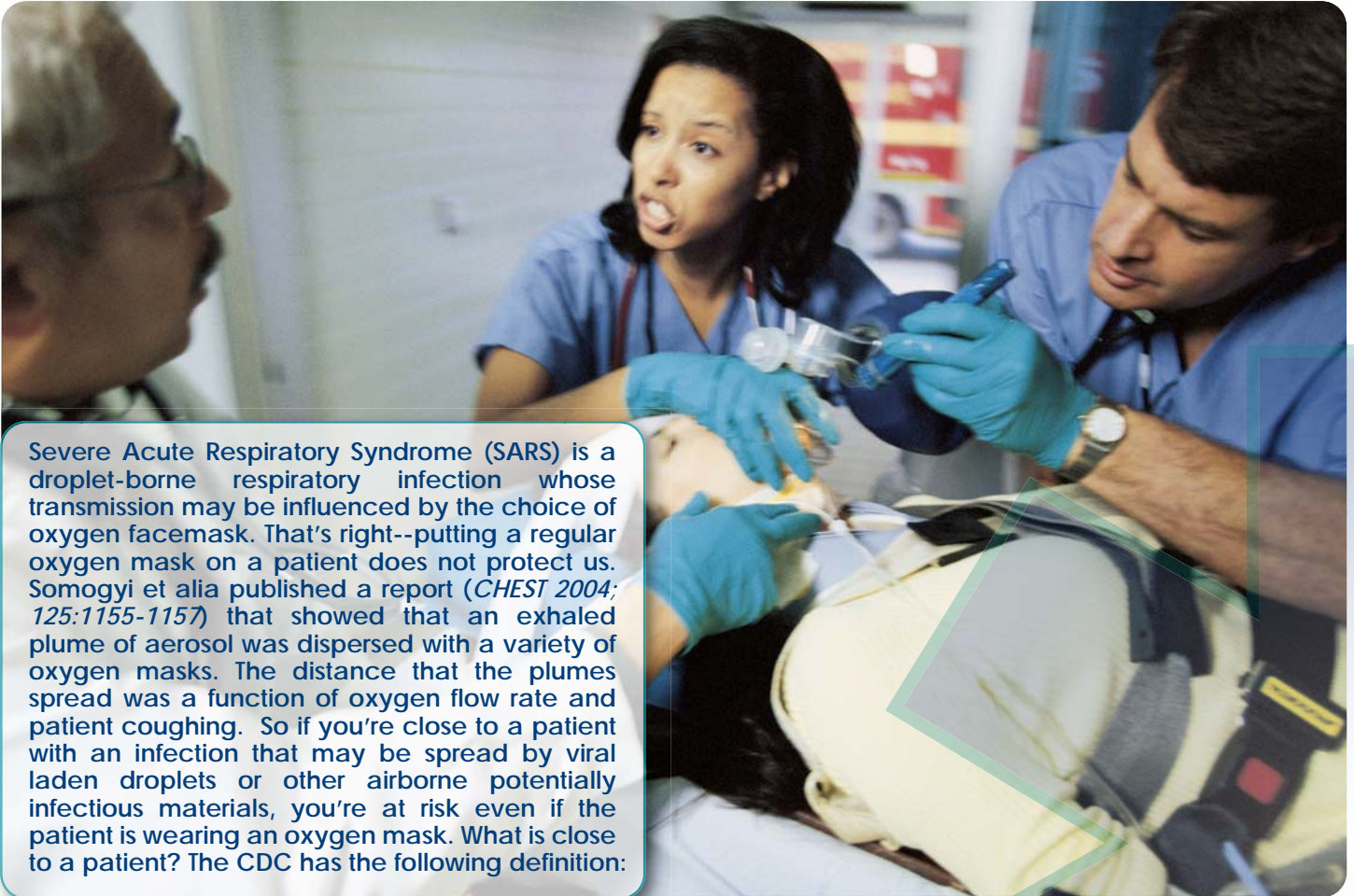


VITALS

A Weekly Safety Newsletter For Medical Transport Professionals

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Is Your Oxygen Mask Safe?



Severe Acute Respiratory Syndrome (SARS) is a droplet-borne respiratory infection whose transmission may be influenced by the choice of oxygen facemask. That's right--putting a regular oxygen mask on a patient does not protect us. Somogyi et alia published a report (*CHEST 2004; 125:1155-1157*) that showed that an exhaled plume of aerosol was dispersed with a variety of oxygen masks. The distance that the plumes spread was a function of oxygen flow rate and patient coughing. So if you're close to a patient with an infection that may be spread by viral laden droplets or other airborne potentially infectious materials, you're at risk even if the patient is wearing an oxygen mask. What is close to a patient? The CDC has the following definition:

"Influenza is thought to be primarily transmitted from person-to-person via virus-laden droplets that are generated when infected persons cough or sneeze; these droplets then settle on the mucosal surfaces of the upper respiratory tracts of susceptible persons who are near (e.g. within about 6 feet) infected persons. Three feet has often been used by infection control professionals to define close contact and is based on studies of respiratory infections; however, for practical purposes, this distance may range up to 6 feet. The World Health Organization defines close contact as 'approximately 1 meter;' the U.S. Occupational Safety and Health Administration uses 'within 6 feet.'"

It's clear that if we transport somebody, we're going to be close to them. What can we do to protect ourselves? A published recommendation (*Lancet 2003;361:1386*) describes the importance of isolating exhaled gases to prevent the release of infected droplets. So what can you do for a spontaneously breathing patient that requires supplemental oxygen? Use a low flow, high concentration oxygen mask with a hydrophobic submicron filter. An example of such a mask is the FLO2MAX Filtered Oxygen Therapy Mask. It's made by BLS Systems Limited in Ontario, Canada. I have only seen pictures of the product, but the concept makes sense. Their website is <http://www.blssystemsLtd.com>. If you know of other similar products, let me know and I'll share the information.

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