What is MERS?

Middle East Respiratory Syndrome (MERS) is an illness caused by a coronavirus called Middle East Respiratory Syndrome Coronavirus (MERS-CoV). Coronaviruses are a large family of viruses that can cause diseases ranging from the common cold to Severe Acute Respiratory Syndrome (SARS).

MERS affects the respiratory system, typically resulting in severe acute respiratory illness displaying symptoms of fever, cough and shortness of breath. About 30%-40% of patients reported with MERS have died. MERS-CoV was first reported in 2012 in Saudi Arabia.

Currently, no vaccine or specific treatment is available to cure MERS. Treatment for infected individuals is supportive and based on the patient’s clinical condition.

How is MERS spread?

Camels are suspected to be a major reservoir host for MERS-CoV and an animal source of MERS infection in humans; however, the exact role of camels in transmission of the virus to humans and the exact route(s) of transmission are unknown.

The majority of human cases of MERS have been attributed to human-to-human infections. MERS-CoV is believed to spread from an infected person’s respiratory secretions, although the specific ways the virus spreads are not currently well understood. MERS-CoV does not seem to pass easily from person to person unless there is close contact. The virus has spread from sick people to others through close contact, such as unprotected caring for or living with an infected person. Infected people have spread MERS-CoV to others in healthcare settings, such as hospitals.

Who needs to be protected?

As a general precaution, individuals visiting farms, markets, barns or other places where camels and other animals are present should practice general hygiene measures, including regular hand washing before and after touching animals. Additionally, contact with sick animals should be avoided.

Transmission of MERS-CoV has occurred in healthcare facilities in several countries, including from patients to healthcare providers and between patients in a healthcare setting before the virus was diagnosed. The symptoms and other clinical features of MERS are non-specific making it difficult to identify patients with MERS-CoV early or without testing. Infection prevention and control measures are critical to prevent the spread of MERS-CoV in healthcare facilities. Healthcare workers should be educated and trained in infection prevention and control, and be diligent in practicing these measures.

1. CDC Fact Sheet, “Information about Middle East Respiratory Syndrome (MERS)"
What protective apparel is available?
The Centers for Disease Control (CDC) and World Health Organization (WHO) provide direction on infection prevention and control procedures related to MERS. Both provide guidance to healthcare professionals for the use of personal protective equipment (PPE) for contact with patients with known or suspected cases of MERS. Both suggest the use of clean, disposable, long-sleeved gowns.

DuPont Personal Protection can provide a wide range of protective garments and related specifications, to meet a broad spectrum of needs.

The selection of appropriate PPE (including respiratory, eye, head, foot and hand protection) is the responsibility of the end user and must be made following a thorough hazard assessment of the work tasks and the environment.

Both DuPont™ Tyvek® and DuPont™ Tychem® QC are available in disposable apron and coverall designs, as well as sleeves. Tychem® QC offers the added protection of a polyethylene coating on Tyvek® fabric. A Tychem® QC apron can provide a blood-borne pathogen impermeable barrier over disposable coveralls or surgical gowns.

Tychem® QC fabric and its taped seams have been tested and have passed the requirements of ASTM Standards F1670 and ASTM F1671.

During high-contact patient activities, especially cleaning, disinfecting and decontaminating, where exposure to moderate to large volumes of bodily fluids is anticipated, a taped seam Tychem® QC garment may be appropriate to reduce the risk of bodily fluid contact.


For details, the standard test methods are available for purchase at:
ASTM F1670: http://www.astm.org/Standards/F1670.htm
ASTM F1671: http://www.astm.org/Standards/F1671.htm

References:
Centers for Disease Control (CDC)

World Health Organization (WHO)
http://www.who.int/emergencies/mers-cov/en/