

## Millions spent to eradicate mold at Navy hospital in San Diego

by Steve Liewer

SAN DIEGO - The Navy is spending \$9 million to rebuild the heating and air conditioning system at San Diego Naval Medical Center after finding disease-causing mold growing inside ventilation ducts, the hospital's officials have confirmed.

A routine inspection last spring revealed colonies of 10 to 12 types of mold, Capt. David Tam, the hospital's deputy commander, said in response to an inquiry from The San Diego Union-Tribune.

Some molds can cause allergies and irritation, said Rick Kreutzer, chief of environmental health for the investigative branch of the California Department of Health Services. Others, including aspergillus, can lead to life-threatening infections such as aspergillosis in patients with cancer or AIDS, or in those who recently received transplanted organs.

Tam said that the naval hospital's levels of mold are lower than in outdoor air, and that no related injuries or deaths have occurred. But spotting visible mold in a ventilation system that is capable of spreading spores throughout the building prompted him and other officials to take action.

Replacement of the system began in October and should be completed next month, said Amy Rohlfs, a hospital spokeswoman. The facility's three towers have been closed down, one at a time, during renovation.

The problem is serious but hardly unique. Last week, a Veterans' Administration survey showed mold, or roof leaks that could lead to mold, in at least six VA medical centers across the country.

Likewise, many civilian hospitals nationwide have had to spend lots of time and money to combat mold in their facilities.

In 2000, Scripps Memorial Hospital in San Diego suffered an aspergillosis outbreak that infected at least 16 patients, six of whom died. Last year, two of the hospital's directors were dismissed after the mold recurred, a problem blamed on their failure to conduct proper maintenance of the ventilation system.

Even though hospitals have used increasingly high-tech air filters, the incidence of mold-based infections and deaths has grown steadily for more than 20 years, according to a January 2006 article in the journal *Infection Control and Hospital Epidemiology*. Researchers aren't sure what is fueling the trend.

After discovering the mold at the naval medical center, also called Balboa naval hospital, the facility's officials reviewed health records of patients and staff members for the past two years. They didn't spot higher-than-expected levels of pulmonary diseases typically associated with mold growth, Tam said.

The county Medical Examiner's Office released to The Union-Tribune the names and causes of death for 25 people who died at Balboa hospital in the past two years. No case involved aspergillosis, although one woman died of an HIV-related viral infection and another died of chronic asthma - both conditions that could be aggravated by exposure to mold.

Tam said mold colonies grew on insulation lining the ducts that carry hot and cold air throughout the hospital. When the facility was built in the 1980s, he said, it was standard practice to insulate ducts on the inside. Today, more is known about the dangers of mold and bacteria, so insulation is installed on the outside of ducts.

Balboa investigators believe an unusually damp winter two years ago, combined with a new energy-saving ventilation system that circulated more outside air through the hospital, caused the mold to grow during 2005.

The hospital's officials decided they had to replace the facility's heating and air conditioning system. They closed the facility's west tower in October for two months of renovation. Repairs on the north tower began in December, and now the east tower is undergoing the same work.

A Jan. 19 inspection by a consulting company showed that levels of aspergillus in the newly renovated west tower had risen since last spring. In a report, the inspectors said the rebuilding might have stirred up mold in that tower.

They advised hospital officials to track the aspergillus levels closely until renovation in all three towers is finished. They also suggested working with the building contractor to make sure construction zones are sealed off from patient-care areas.

Besides aspergillus, the report cited levels of penicillium and paecilomyces - molds linked to lung and blood infections in certain patients - high enough to cause concern. It said some types of mold found indoors aren't present outside the hospital, suggesting a source other than outdoor air.

Ultimately, Tam said, Balboa "is a safe environment for patients. The whole emphasis has been to maintain

that."

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