

New Bacteria Discovered in Local Hospital

Brian Hardy

Pallet Town—Recently, a large amount of nosocomial infections have been reported at the Pallet Town Hospital. When asked about what may be the cause of these nosocomial infections, Nurse Joy, the Nurse Manager of the center, assured us that they are handling the situation well.

“We realized that the patients getting sick were cancer patients,” Nurse Joy told us. “All these patients had indwelling catheters and incidentally they all had urinary tract infections.”

The hospital decided that more research needed to be done to determine what was causing these infections. To accomplish this, they hired a well-known Microbiologist, Professor Oak, to do some investigating.

“First, I had to obtain a sample of the bacteria I was trying to identify,” Oak informed us. “We obtained a urine sample from a sick patient and began to research right away.”

Oak was able to grow the bacteria in his laboratory. He observed the bacteria and used these observations to identify the microorganism.

“When we looked at the bacteria first, we saw that it was white in color and grew randomly in the test tube. We then stained it and looked at its arrangement. We found that the bacteria were spherical, or cocci, and arranged in irregular clusters, like grapes.”

Oak informed us that characteristics like these are very important in identifying the bacteria in question.



“Next we performed a Gram stain to determine whether it was Gram negative or Gram positive. After the staining procedure, we discovered that the bacteria were Gram positive. This helped us get a closer idea as to what we were dealing with.”

Gram staining is a very important step in identifying bacteria. When we know whether a bacterium is Gram negative or Gram positive, we are able to narrow the search for identification.

“We also performed some other tests to help narrow our search. By staining, we determined that it was not Acid-fast and not an endospore former.”

The researchers soon discovered that they had found something special.

“The bacteria we isolated had never been seen before. We soon realized that we had discovered a bacterium. We decided to name it *Staphylococcus epidermidis*. We then had the task of finding out how these bacteria got in patient’s bladders.”

The research team took samples from various areas in the hospital and soon discovered that *Staphylococcus epidermidis* was most commonly found on the skin. This is called normal flora. They used this information to hypothesize that the bacteria found their way into bladders through catheter tubes. The normal flora, which is usually harmless, caused problems to the patients because they had low immune

systems and were unable to fight off the infection.

Nurse Joy assures us that sterile gloves are now worn when catheters are inserted and other invasive procedures are done.

The Hospital is sure that when sterile procedures are used, their high amount of nosocomial infections will decrease.

Research for this article came from class notes and Microbiology: A Human Perspective.

+ 5/5 Great Job!