Study results of microbial cultures isolated from patients hospitalized in different wards of hospitals in Khuzestan, Ahvaz 2008-9 (IRAN)

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Abstract: A **microbiological culture**, or **microbial culture**, is a method of multiplying microbial organisms by letting them reproduce in predetermined culture media under controlled laboratory conditions. Acquired infections, nosocomial infections due to medical care that patients performed within 24 hours after the start of admission to 72 hours after discharge from the hospital to be with them, are applicable. Again according to some developing countries 5 to 10 percent of patients admitted to these infections may be affected. This issue is being raised because the control of nosocomial infections as a global priority and to identify their coordinates in one of the hospitals was conducted.

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1. Introduction

Microbial cultures are used to determine the type of organism, its abundance in the sample being tested, or both. It is one of the primary diagnostic methods of microbiology and used as a tool to determine the cause of infectious disease by letting the agent multiply in a predetermined media. For example, a throat culture is taken by scraping the lining of tissue in the back of the throat and blotting the sample into a media to be able to screen for harmful microorganisms, such as *Streptococcus pyogenes*, the causative agent of strep throat.[1] Furthermore, the term culture is more generally used informally to refer to "selectively growing" a specific kind of microorganism in the lab (1, 2).

Microbial cultures are foundational and basic diagnostic methods used extensively as a research tool in molecular biology. It is often essential to isolate a pure culture of microorganisms. A pure (or *axenic*) culture is a population of cells or multi cellular organisms growing in the absence of other species or types. A pure culture may originate from a single cell or single organism, in which case the cells are genetic clones of one another (1, 2 and 3).

For the purpose of gelling the microbial culture, the medium of agar's gel (Agar) is used. Agar is a gelatinous substance that is derived from seaweed. A cheap substitute for agar is Guar gum, which can be used for the isolation and maintenance of thermopiles (2)

Microbiological cultures utilize Petridis of differing sizes that have a thin layer of agar based growth medium in them. Once the growth medium in the Petridis is inoculated with the desired bacteria, the plates are incubated in an oven usually set at 37 degrees Celsius. Another method of bacterial culture is *liquid culture*, in which case desired bacteria are suspended in liquid broth, a nutrient medium. These are ideal for preparation of an antimicrobial assay. The experimenter would inoculate liquid broth with bacteria and let it grow overnight in a shaker for uniform growth, then take aliquots of the sample to test for the antimicrobial activity of a specific drug or protein (antimicrobial peptides).

Virus or phage cultures require host cells for the virus or phage to multiply in. For bacteriophages, cultures are grown by infecting bacterial cells. The phage can then be isolated from the resulting plaques in a lawn of bacteria on a plate. Virus cultures are

obtained from their appropriate eukaryotic host cells (1, 2).

2. Material and Methods

In this study, group identification and control of nosocomial infections consisting of nurses, physicians and laboratory experts in infectious disease specialist, examined the suspected cases and tested and proven after infection, compared to record all required information has action, this study During 2008 and 2009 among 91 confirmed cases have been performed.

3. Results

Data analysis the patients who benefit from version 18, SPSS called PASW performed include a variety of results that follows refers to some of them are: Age: risk age groups 59-50, 69-60, 71-70. The highest rates of infection than other age groups are.

Gender: The sex 5 / 68 percent of patients were male and 5 / 31% were female. Underlying disease: evaluation of patients with diabetes show that most facilitators operating in this field have been.

4. Outcome measures

After treatment measures 73% of patients improved and were discharged but the other 27% mainly to cancer and had suffered strokes died.

5. Conclusion pollution factors

Coagulates positive staphylococcus, pseudomonas and Asintobacter were infected highest gain among other factors, interventions have been.

6. Inpatient wards Conclusion

Patients admitted to study spatial distribution of these findings indicate that 2 / 46% cases of these infections in ICU, 6 / 17% in surgery for men and 5 / 16% in the domestic sector are women with this disease.

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