**POLTEKKES KEMENKES TANJUNGKARANG**
**JURUSAN TEKNOLOGI LABORATORIUM MEDIS**
**PROGRAM STUDI TEKNOLOGI LABORATORIUM MEDIS**
**PROGRAM SARJANA TERAPAN**
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Intan Fauziah Putri

**Hubungan Kualitas Fisik dan Kimia Air Kolam Renang Dengan Pertumbuhan Jamur *Candida albicans* dan *Aspergillus sp* di Kolam Renang Kota Bandar Lampung**

xiv+ 54 Halaman, 15 gambar, 20 tabel dan 15 lampiran

ABSTRAK

*Candida albicans* dan *Aspergillus sp* dapat menyebabkan infeksi pada manusia, terutama di lingkungan lembap seperti kolam renang. Infeksi oleh *Candida* dikenal sebagai kandidiasis, sedangkan *Aspergillus sp* menyebabkan *aspergilosis* yang dapat menyebabkan batuk. Penelitian ini bertujuan untuk mengetahui hubungan antara kualitas fisik (suhu dan bau) serta kimia (pH dan sisa klor) air kolam renang dengan pertumbuhan jamur tersebut. Penelitian dilakukan secara observasional analitik dengan desain *cross-sectional* pagi dan sore hari pada Mei 2025 menggunakan 30 sampel air kolam renang. Hasil analisis statistik menunjukkan bahwa suhu tidak memiliki hubungan signifikan dengan keberadaan jamur *Candida albicans p-value* 0.877 namun memiliki hubungan signifikan dengan *Aspergillus sp p-value* 0.038. Parameter bau juga tidak menunjukkan hubungan signifikan terhadap keberadaan *Candida albicans p-value* = 0,657 maupun *Aspergillus sp p-value* = 0,118. Sebaliknya pH air berhubungan signifikan dengan *keberadaan Candida albicans p-value* 0,026 dan *Aspergillus sp p-value*= 0,013. Sisa klor juga berhubungan signifikan dengan *Candida albicans p-value*= 0,016 *dan Aspergillus sp p-value*= 0,042.

Kata Kunci : *Candida albicans, Aspergillus sp, Kualitas Fisik air kolam renang, Kualitas Kimia air kolam renang*

Daftar Bacaan : 50 ( 2000-2024)

**POLTEKKES KEMENKES TANJUNGKARANG**
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Intan Fauziah Putri

**The Relationship of Physical and Chemical Quality of Swimming Pool Water with the Growth of *Candida albicans* and *Aspergillus sp* in the Swimming Pool of Bandar Lampung City**

xiv + 54 pages, 15 figures, 20 tables, and 15 appendices

ABSTRACT

*Candida albicans* and *Aspergillus sp* can cause infections in humans, especially in humid environments such as swimming pools. Infections caused by *Candida* are known as candidiasis, while *Aspergillus sp* causes *aspergillosis* which can lead to coughing. This study aims to determine the relationship between the physical quality (temperature and odor) and chemical quality (pH and residual chlorine) of swimming pool water with the growth of these fungi. The research was conducted using an analytical observational method with a cross-sectional morning and afternoon design in May 2025 using 30 samples of swimming pool water. The results of the statistical analysis indicate that temperature does not have a significant relationship with the presence of *Candida albicans* with a p-value of 0.877, but it does have a significant relationship with *Aspergillus sp* with a p-value of 0.038. The odor parameter also did not show a significant relationship with the presence of *Candida albicans* with a p-value of 0.657 or *Aspergillus sp* with a p-value of 0.118. Conversely, the pH of water is significantly related to the presence of *Candida albicans* with a p-value of 0.026 and *Aspergillus sp* with a p-value of 0.013. Residual chlorine is also significantly related to *Candida albicans* with a p-value of 0.016 and *Aspergillus sp* with a p-value of 0.042.

Keywords : *Candida albicans, Aspergillus sp, the physical quality of swimming pool water, chemical quality of swimming pool water*

Reading List : 50 (2000–2024)