

**PROGRAM STUDI S1 ILMU KESEHATAN MASYARAKAT FAKULTAS
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**Hubungan Paparan Insektisida Cair Terhadap Keluhan Gangguan Pernapasan
Pada Pegawai Dan Kader Pelaksana Pengendalian Bkk Kelas 1 Tanjung Balai
Karimun**

ABSTRAK

Paparan insektisida cair pada kegiatan pengendalian vektor dapat menimbulkan gangguan pernapasan seperti batuk, sesak napas, mengi, hingga penurunan fungsi paru. Paparan insektisida organofosfat dilaporkan meningkatkan risiko gejala asma sebesar 31%, sedangkan karbamat sebesar 44%. Gangguan kesehatan akibat kerja bahkan berkontribusi terhadap sekitar 1,9 juta kematian setiap tahun, sehingga perlindungan terhadap pekerja yang terpapar insektisida penting diperhatikan. Penelitian ini bertujuan mengetahui hubungan masa kerja, lama paparan, dan penggunaan alat pelindung diri (APD) dengan keluhan gangguan pernapasan pada pegawai dan kader pelaksana pengendalian BKK Kelas I Tanjung Balai Karimun Tahun 2026. Penelitian menggunakan desain observasional analitik dengan pendekatan cross sectional. Sampel berjumlah 30 orang menggunakan total sampling. Data dikumpulkan melalui kuesioner dan dianalisis menggunakan uji Chi-Square ($\alpha=0,05$). Hasil menunjukkan terdapat hubungan signifikan antara penggunaan APD dengan keluhan gangguan pernapasan ($p=0,003$), dengan penggunaan APD kurang baik memiliki odds 11 kali lebih besar mengalami keluhan ($OR=11,00$; 95% CI: 1,998–60,572). Tidak terdapat hubungan antara masa kerja ($p=0,156$) dan lama paparan ($p=1,000$) dengan keluhan gangguan pernapasan. Tidak adanya hubungan tersebut kemungkinan dipengaruhi oleh faktor lain yang lebih dominan, seperti jenis dan konsentrasi insektisida, frekuensi kontak, serta teknik penyemprotan. Disimpulkan bahwa penggunaan APD berhubungan dengan keluhan gangguan pernapasan, sedangkan masa kerja dan lama paparan tidak berhubungan secara signifikan.

Kata Kunci: paparan insektisida, gangguan pernapasan, alat pelindung diri.

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***The Relationship Between Liquid Insecticide Exposure and Respiratory Complaints
Among Employees and Control Cadres at the Class I Health Quarantine Center (BKK)
Tanjung Balai Karimun***

ABSTRACT

Exposure to liquid insecticides during vector control activities may cause respiratory disorders such as coughing, shortness of breath, wheezing, and reduced lung function. Organophosphate insecticide exposure has been reported to increase the risk of asthma symptoms by 31%, while carbamate exposure increases the risk by 44%. Occupational health problems contribute to approximately 1.9 million deaths annually, highlighting the importance of protecting workers exposed to insecticides. This study aimed to determine the relationship between length of service, duration of exposure, and personal protective equipment (PPE) use with respiratory complaints among employees and control cadres at the Class I Health Quarantine Center (BKK) Tanjung Balai Karimun in 2026. This study used an analytic observational design with a cross-sectional approach. A total of 30 respondents were selected using total sampling. Data were collected through questionnaires and analyzed using the Chi-Square test ($\alpha=0.05$). The results showed a significant relationship between PPE use and respiratory complaints ($p=0.003$), with poor PPE use associated with 11 times higher odds of experiencing respiratory complaints ($OR=11.00$; 95% CI: 1.998–60.572). No significant relationship was found between length of service ($p=0.156$) or duration of exposure ($p=1.000$) and respiratory complaints. These findings may be influenced by other dominant factors, such as the type and concentration of insecticides, frequency of contact, and spraying techniques. It is concluded that PPE use is associated with respiratory complaints, whereas length of service and duration of exposure are not significantly associated.

Keywords: insecticide exposure, respiratory complaints, personal protective equipment.