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Evaluation of Rational Antibiotic Use in Non-Pneumonia ARI Disease Patients in the Working Area of Health Center "X" in Mining Area PT. ANTAM, Tbk Pomalaa Subdistrict

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ABSTRACT

Introduction: Infection of the airways is a common disease in the community. Most respiratory infections are caused by infections, but can also be caused by installation of organic materials or chemical vapors and inhalation of dust materials containing allergens. The main effects of dust on workers are both acute lung disorders and chronic physiological dysfunction, eye irritation, sensory irritation, and accumulation of harmful substances in the body. This study is intended to find out the rigors of antibiotics in cases of non-pneumonia airway infection disease in the working area of health center "X" in the mining area of PT. Antam Tbk Pomalaa Subdistrict June-December 2021 period.

Method: Data retrieval is done descriptively by taking secondary data in the health center "X" mining area pt. Antam Tbk Pomalaa Subdistrict. The maximum value of antibiotics in ARI non-pneumonia disease is the maximum limit set by the health department, which is 20%.

Result: The study there were 230 patients affected by non-pneumonia ARI disease in health center "X" mining area PT. Antam Tbk Pomalaa Subdistrict.

Conclusion: The use of antibiotics in ARI non-pneumonia in health center "X" Pomalaa subdistrict is rational.

Introduction

Infection of the airways is a common disease in the community. Most respiratory infections are caused by infections, but can also be caused by inhalation of organic materials or chemical vapors and inhalation of dust materials containing allergens.^[1] The respiratory tract in question is organs ranging from the nose to lung bubbles, along with surrounding organs such as sinuses, middle ear space, and pulmonary membranes. Signs and symptoms of respiratory tract infections can be cough, difficulty breathing, sore throat, runny nose, earache, and fever. ARI causes four out of 15 million deaths of children under the age of 5 each year.^[2]

Acute Respiratory Tract Infections (ARI) are caused by a wide variety of viruses or bacteria, such as adenoviruses consisting of 50 different types of viruses that cause colds, bronchitis, and pneumonia. Treatment measures can be done on ARI non-pneumonia, namely in flu and cough conditions, such as cough suppressants, namely codeine, dextro methorphan, ammonium chloride, and noscipine for flu drugs.^[3]

Irrational use of drugs is an important issue that has a considerable impact on the decline in the quality of health services and increases the government budget allocated to medicines. The use of drugs is said to be irrational if it cannot be accounted for medically, both regarding the accuracy of the type, dosage, and how to administer the drug.^[4]

Wise and rational use of antibiotics can reduce the burden of diseases, especially infectious diseases. In contrast, the widespread use of antibiotics in humans and animals did not match indications, resulting in a significant increase in antibiotic resistance. Increased resistance has led to increased morbidity and mortality, as well as the increasing cost of patient care.^[5]

Method

The research method used is a descriptive approach with data retrieval retrospectively.^[6] The research was conducted in January 2022 at health center "X" in the mining area of PT. Antam Tbk Pomalaa Subdistrict. The population in this study was the result of data collection conducted by health center officer "X", including patients

suffering from non-pneumonia ARI in the June-December period of 2021.

Result

Table 1 shows the study obtained the results of the number of male patients more than the number of female patients, namely 118 male patients with a percentage of 51.3% and 112 female patients with a percentage of 48.7%.

Table 2 shows that the largest age group is the age group of <1 year as many as 169 patients (73.5%) and the smallest age group of 1-5 years is 61 patients (26.5%).

Table 3 shows that the most non-pneumonia ARI sufferers were in June as many as 42 patients (18.3%) and the smallest number of non-pneumonia ARI sufferers in August were 13 patients (5.6%).

Table 1
Distribution of ARI Non-Pneumonia Patients by Gender period June-December 2021 at Public Health Center "X" in Mining Area PT. Antam Tbk Pomalaa Subdistrict

No	Gender	n	%
1	Man	118	51,3
2	Woman	112	48,7
Total		230	100

Table 2
Distribution of ARI Non-Pneumonia Patients According to Age Group Period June-December 2021 at Public Health Center "X" in Mining Area PT. Antam Tbk Pomalaa Subdistrict

No	Kelompok Umur	n	%
1	<1 Tahun	169	73,5
2	1-5 Tahun	61	26,5
Total		230	100

Table 3
Distribution of ARI Non-Pneumonia Patients
According to the Period June-December 2021 at
Public Health Center "X" in Mining Area PT.
Antam Tbk Pomalaa Subdistrict

No	Month	n	%
1	June	42	18,3
2	July	29	12,6
3	August	13	5,6
4	September	40	17,4
5	Oktober	28	12,2
6	November	37	16
7	December	41	17,9
Total		230	100

Discussion

Based on the theory of non-pneumonia ARI treatment management explained that the use of non-pneumonia ARI does not necessarily use antibiotics, because the cause of this disease is generally a more dominant virus that does not require antibiotics.^[7] Steps to use symptoms that arise such as cough, flu, fever, and pain. More prioritized by giving analgesics, antipyretics, antihistamines, vitamins, and minerals to increase endurance and encourage patients to rest and avoid exposure that causes health problems, such as smoking, if this is considered at least the use of antibiotics can be reduced.^[8] Pneumonia in toddlers is one of the diseases of particular concern to the Indonesian government. Pneumonia caused between viruses and bacteria is difficult to distinguish through clinical signs, physical examination, and history of the disease experienced by patients.^[9]

Treatment of non-pneumonia ARI does not necessarily use antibiotics, because the cause of this disease is generally a more dominant virus that does not require treatment with antibiotics. Measures to treat symptoms such as cough, flu, fever, and pain are prioritized by giving analgesics, antipyretics, antihistamines, decongestants, antitussive or expectorants, vitamins, and minerals to increase endurance and encourage patients to rest and avoid exposure that

causes health problems, such as smoking. This makes the public or health workers take a quick decision to use antibiotics, in the hope that the disorder experienced soon resolved and can move as usual.^[10]

Improper use of antibiotics is an important problem worldwide, antibiotic use in respiratory infections caused by viruses and overuse of broad-spectrum antibiotics increase antibiotic resistance.^[11] The health service implements a policy to control the use of antibiotics, one of which is for non-pneumonia ARI disease. This policy is certainly very good to prevent uncontrolled use of antibiotics that will eventually have an impact on the occurrence of resistance.^[12] Antibiotics used are not by the time of treatment so it can result in a lack of dose. This is due to the limited availability of basic health services and a lack of understanding of rational antibiotic use.^[13] It is expected that the government can implement a policy related to the rational use of antibiotics at every level of treatment, especially in basic health services. The effects of prescribing antibiotic use in the short term on basic treatment services may increase the incidence of resistance.^[14]

Conclusion

Based on research it can be concluded that from health center "X", the use of antibiotics in non-pneumonia ARI is rational.

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