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Prescription pattern in respiratory tract infection diseases in a tertiary care hospital

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Abstract
An infection anywhere in the respiratory tract is referred to as an infection in the respiratory tract (i.e nose, throat, lungs). It's possible that bacteria, viruses, or fungus are to blame for the infection. Infections of the respiratory system are extremely prevalent. These are thought to be one of the primary reasons why people go to see their general practitioner (GP) or pharmacist. [Case in point:] [Case in point:] Upper respiratory tract infections and lower respiratory tract infections are the two categories that fall under the umbrella term "respiratory tract infection."

Keywords: Prescription, pattern, respiratory tract, infection

Introduction
Infections of the respiratory tract are encountered often. It is considered that these are one of the primary reasons why individuals go to their GP (General Physician) or their local pharmacist. When compared to other sections of the body, the respiratory tract is especially susceptible to becoming infected. This is due to the fact that when someone breathes in, it is quite simple for germs or viruses to enter the respiratory tract. During the winter, respiratory tract infections are more prevalent than at other times of the year. This could be related to the fact that during the winter months, people tend to spend more time indoors and are hence more inclined to interact closely with one another. The prognosis for infections of the respiratory tract is typically positive. The vast majority of infections are self-limiting, which means that they will resolve themselves and do not require any kind of medical treatment. However, persons who are more susceptible to the side effects of infection may require additional therapy in addition to the standard medical care. Individuals that could need this include people like [1-5]. There are a number of vaccines available for some of the viruses and bacteria that might cause infection, such as the vaccine for influenza and the vaccine for pneumococcal disease (pneumococcal bacteria is a family of bacteria that can cause pneumonia). An infection anywhere in the respiratory tract is referred to as an infection in the respiratory tract (i.e. the nose, throat and lungs). Bacteria, viruses, or even fungi could be the organisms responsible for causing the infection. The word "respiratory tract" is a generic term that is used to describe all of the components of the body that are involved in allowing a person to breathe. These sections include the nose, throat, lungs, and mouth [6, 10]. This study puts in an effort to find the prescription pattern in respiratory tract infection diseases in a tertiary care hospital.

Aims and Objectives
To study the prescription pattern in respiratory tract infection diseases in a tertiary care hospital.

Materials and Methods
This study was done in the Department of Pharmacology with the help of Institution Medical Records Department. This is a retrospective observational study that was carried out over the course of a period of six months using MRD data sheets as a tool. The Individuals who were admitted to the hospital or who were seen in the outpatient department between October 2020 and March 2021 will be eligible for enrollment in the study. A total number of 460 patients were included in the study. Out of which 280 were URTI and the rest were LRTI.

Results

Table 1: Mean age

Mean Age	Range	Standard Deviation
38.32 years	20-60 years	09.15 years

Table 2: Age Distribution:

Age	LRTI	URTI
20-30 years	08	80
30-40 years	56	140
40-50 years	44	30
50-60 years	72	30

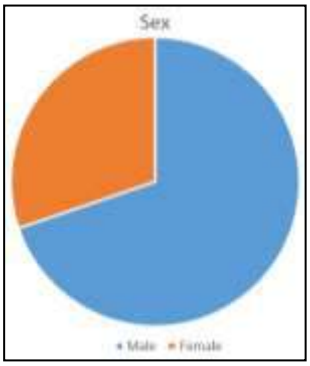

Image 3: Sex Distribution:

Table 4: Antibiotics in use

Antibiotics	Frequency
Pencillins	91
Macrolides	23
Cephalosporins	56
Flouroquinolones	89
aminoglycosides	26
Tetracyclins	09
No Antibiotics	166

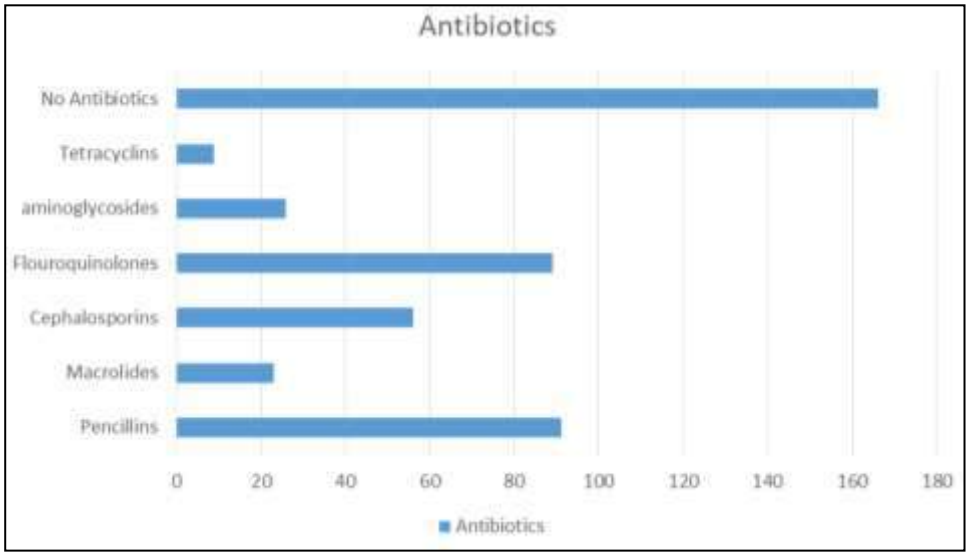

Image 2: Antibiotics in use

Table 5: Corticosteroids used:

Yes	78
No	382

Discussion

On the differences between the sexes in the incidence and severity of respiratory tract infections, it was found that females have a lower immune system, higher levels of cholesterol, are more likely to be obese, have higher insulin levels, and are more likely to be affected by estrogen. This makes them more likely to contract infections than males. Hadley J.A. and colleagues conducted research on the effective utilization of antibiotics in the treatment of respiratory infections. The goals of this study are to (1) determine which antimicrobial drugs should be used for treating respiratory tract infections and (2) examine the elements that should assist in accomplishing this goal. Community-acquired pneumonia, acute bacterial sinusitis, and certain cases of acute exacerbation of chronic bronchitis (50%) require antimicrobial therapy. On the other hand, various otitis media with effusion, acute bronchitis, the majority of rhinosinusitis, and viral infections do not call for antimicrobial therapy. Small P, *et al*. 2022 [11] research was done on delaying antibiotic prescriptions for patients with respiratory tract infections who were treated in primary care settings. The purpose of this study is to evaluate the efficacy of various techniques involving the delayed prescription of antibiotics for acute respiratory infections. The conclusion demonstrates that delayed antibiotic prescriptions result in no prescriptions being filled at all, which leads to fewer than forty percent of patients getting antibiotics. Akkerman B E, *et al*. 2005 [13] The practice of general physicians prescribing antibiotics for respiratory tract infections was the subject of this research. The purpose of this study is to evaluate inpatients who have respiratory tract infections (RTIs), the rates at which antibiotics are provided, the association between characteristics of general practitioners and antibiotic prescribing, and the types of antibiotics that are

prescribed. According to the findings of the studies, 17% of antibiotic prescriptions were for macrolides. As a result of our research, we came to the conclusion that macrolides are prescribed to 50.4% of patients [13]. Corticosteroids have been investigated for the treatment of acute and subacute coughs caused by infections of the respiratory tract. The purpose of this project is to carry out a comprehensive analysis of randomized controlled trials in order to evaluate the effect of corticosteroid therapy in otherwise healthy persons who are experiencing an acute respiratory tract infection (ARTI). According to the findings and conclusions, there is not enough evidence to advocate the routine use of inhaled corticosteroids for treating acute RTI in adults.

Conclusion

We were indeed happy to see so many doctors not prescribing antibiotics unnecessarily.

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