Antimicrobial Resistance
Effects of antibiotic prescribing in primary care

Introduction
One of the most pressing problems faced by health care services is the increasing prevalence of antimicrobial resistance. In general practice, there are concerns that some common infections are becoming increasingly difficult to treat and that illnesses due to antibiotic-resistant bacteria may take longer to resolve. Some antimicrobial resistance may result from indiscriminate or poor use of antibiotics. Although many countries have been successful in reducing primary care prescribing of antimicrobials, primary care is still responsible for the majority of antibiotics prescribed to people. Much of this use is in the treatment of suspected respiratory infection. However, there are many barriers to reducing the inappropriate use of antimicrobials, including patient and practitioner expectations, lack of patient awareness of the problems caused by antimicrobial resistance, and a perception in primary care clinicians and patients that antibiotic resistance is only a theoretical or minimal risk.

To reduce prescribing, it may be important to highlight the effect of antimicrobial use on emergent resistance for individuals. The authors conducted a systematic review and meta-analysis of studies to assess the effect of antimicrobial use on the emergence of resistance in individual patients in primary care and quantify the strength and duration of any association as well as identify which antibiotics were most and least likely to cause resistance.

Resistance in Urinary Bacteria
Results of some studies investigating effects of antibiotics on urinary bacteria
showed that, at all the time periods over which exposure was measured, the odds of resistance were greater in patients exposed to antibiotics than in those who were unexposed. Also, the strongest association was observed between 0 and 1 month, with reduced association at subsequent time points, and a small but important residual association within 12 months. In participants who were unexposed to antibiotics, the pooled odds of resistance varied little between time periods. There was no evidence of within group heterogeneity in the 0 to 1-month and 0 to 3-month periods, but some evidence of heterogeneity in the 0 to 6-month and 0 to 12-month periods.

**Resistance in Respiratory Bacteria**

A meta-analysis of seven retrospective studies examining resistance in respiratory tract bacteria showed that although there was some evidence of an association between antibiotics and resistance between 0 and 1 month, 0 and 2 months, and 0 and 12 months, intervening periods had less evidence of such associations. However, no association was observed between resistance and time. Within group heterogeneity was less, with the most heterogeneity present in the 0 to 12-month period. Among participants who were unexposed to antibiotics, the pooled odds of resistance varied across time periods from 0.08 in the 0 to 2-month period to 0.51 during the 0 to 3-month period.

- **Worldwide, primary care is responsible for the majority of antibiotic use.**
- **Although many countries have reduced prescribing rates, substantial variations remain between countries.**
- **Many clinicians and patients do not consider antibiotic resistance as a reason to refrain from antibiotic use.**
- **Antibiotics prescribed to an individual in primary care may be associated with resistance of urinary and respiratory bacteria to those antibiotics in that individual.**
- **The greater the number or duration of antibiotic courses prescribed in the previous 12 months, the greater the likelihood that resistant bacteria would be isolated from that patient.**

In a prospective study, it was observed that prescribing amoxicillin to a child in general practice more than tripled the mean inhibitory concentration for ampicillin (9.2 µg/mL as compared to 2.7 µg/mL, \( P = .005 \)) and doubled (67% as compared to 36% in patients who were not exposed to antibiotic) the risk of isolation of hemophilus isolates possessing homologues of ICEHin1056 (integrative and conjunctive element that encodes \( \beta \)-lactamase) with a relative risk of 1.9 (95% CI 1.2–2.9) at 2 weeks postexposure and 1.0 (0.5–1.7) at 12 weeks postexposure. Results of a randomized controlled trial examining resistance (associated with azithromycin or clarithromycin) at specific time points showed a decaying association with resistance to macrolides at all time points up to 6 months with strong evidence of a time trend.

**Resistance Over Time in MRSA Studies**

Hospital MRSA strains are becoming persistent in the community, and nonhospital epidemic strains are being acquired in the community. The mechanism of MRSA transmission is clearly complex and to explore this issue further, repeated screening of large numbers of individuals (mostly noncarriers) would be necessary over a long period. In the meantime, minimization of unnecessary community prescribing for skin infections seems a reasonable precautionary principle.

**Conclusion**

Evidence from around the world showed that primary care antibiotics make an important contribution to the problem of antimicrobial resistance. Primary care clinicians and patients may wish to consider this evidence while discussing the benefits and risks of prescribing and consuming antibiotics.

Asparagus racemosus

Asparagus racemosus, an undershrub that grows up to 3 m in height, is found throughout the tropical regions of Africa, Java, Australia, India, Sri Lanka, and southern parts of China. In India, it is found in plains up to 4000 ft high, in tropical, subtropical, dry, and deciduous forests and in the Himalayas. In traditional systems of medicine, the fresh juice of root is given with honey as a demulcent in bilious dyspepsia or diarrhea. In Ayurveda, the root extract of Asparagus racemosus, a well-known tonic for feminine health, is prescribed to increase the milk secretion during lactation. Several studies showed that Asparagus racemosus extracts possess galactagogue properties. In an experimental study, it was observed that the systemic administration of alcoholic extract of Asparagus racemosus to weaning rats increased the weight of mammary glands, inhibited involution of lobulo-alveolar tissue, and maintained milk secretion. In another study, the treatment with root extracts of Asparagus racemosus blocked the spontaneous uterine motility and pitocin-induced uterine contraction in vitro and in vivo in animal models. Ethyl acetate and acetone extracts of roots of Asparagus racemosus inhibited spasmogen-induced contraction, while alcoholic extract specifically blocked the pitocin-induced contractions. The specific blocking of pitocin-sensitive receptors, and not other uterine receptors, suggests that Asparagus racemosus could be used as uterine sedative.

Withania somnifera

Withania somnifera—an erect, evergreen, tomentose shrub—grows extensively in the subtropical regions of India, Nepal, Bangladesh, Pakistan, and Sri Lanka. Root extracts of Withania somnifera are widely used as aphrodisiac in the traditional system of medicine. The annual production of Withania somnifera roots is estimated to be over 7000 tonnes in India. Withania somnifera has been observed to possess nervine tonic, aphrodisiac, and sedative properties. In the traditional systems of medicine, it is used for the treatment of rheumatism and general weakness.

In an experimental study, it was observed that the treatment of stress with Withania somnifera extract for 30 days, significantly reversed the stress-induced NADPH-d activation. Observations suggested that inhibition of NADPH-d by Withania somnifera was not a direct effect of extract on NADPH-d, instead it inhibited via the suppression of corticosterone release and activation of choline acetyltransferase, which in turn increased serotonin level in hippocampus to inhibit NADPH-d. To summarize, the main mechanism underlying the neuroprotective effects of Withania somnifera can be attributed to its role in the downregulation of nNOS and neurochemical alterations of specific neurotransmitter systems. These observations suggested that root extracts of Withania somnifera could be developed as a potential preventive or therapeutic drug for stress-induced neurological disorders.

Other studies have shown that Withania somnifera possesses antidepressant, antistress, and adaptogenic properties, and can be used as a mood stabilizer in socially isolation behavior.
Clinical Safety and Efficacy of Septilin Tablets in Respiratory Tract Infection

The present study was conducted to evaluate the role of Septilin in the treatment of respiratory tract infection. The study comprised 148 patients with upper and lower respiratory tract infections. Septilin tablet was given to all the patients at a dosage of 2 tablets twice daily, for a period of 6 weeks. All the patients were evaluated for the presenting symptoms at intervals of 2 weeks for a period of 6 weeks.

Control and gradual improvement of symptoms were noticed after 2 weeks of treatment, and further improvement was observed with continued treatment (Table 1). Of the 148 patients treated, only 2 patients experienced mild abdominal discomfort and all patients tolerated the drug well. None of the patients were withdrawn from the study due to adverse effects. Therefore, it can be concluded that Septilin tablets resulted in a statistically significant improvement in the symptoms of upper and lower respiratory tract infections. Also, Septilin was safe at the dose administered and well tolerated by the patients.

<table>
<thead>
<tr>
<th>Table 1. Effect of Septilin on Respiratory Tract Infection</th>
</tr>
</thead>
<tbody>
<tr>
<td>Parameters</td>
</tr>
<tr>
<td>-------------------</td>
</tr>
<tr>
<td>Tonsillitis</td>
</tr>
<tr>
<td>Pharyngitis</td>
</tr>
<tr>
<td>Laryngitis</td>
</tr>
<tr>
<td>Sinusitis</td>
</tr>
<tr>
<td>Rhinitis</td>
</tr>
<tr>
<td>Bronchitis</td>
</tr>
</tbody>
</table>

*P<.01 compared to at entry values  
**P<.001 compared to at entry values


Immunomodulatory Efficacy and Safety of Septilin Syrup in Solid Malignancy Pediatric Patients on Chemotherapy

A randomized, stratified, controlled, phase III clinical trial was conducted to evaluate the immunomodulatory efficacy and safety of Septilin syrup, as an adjunct, in pediatric solid malignancy patients undergoing chemotherapy. The study included 38 pediatric patients with advanced solid malignancy (Wilms’ tumor and neuroblastoma). Informed written consent was obtained from parents/guardians of all patients. All patients were randomized into two groups to receive either Septilin syrup at a dosage of 5 mL thrice daily for 6 weeks, starting 48 hours prior to commencement of chemotherapy, or chemotherapy alone. At each follow-up visit, all patients were clinically evaluated for the response of chemotherapy, toxicity of chemotherapy, need for in-between postponement or stoppage of chemotherapy, and requirement for blood transfusion during the course of chemotherapy. There was no significant difference in patients in both groups with regard to their age and distribution of tumor. The incidence of adverse events was low in the Septilin-treated group and patients receiving Septilin therapy had minimal loss of appetite in comparison to those receiving chemotherapy alone. There was no significant difference in the total WBC count in patients in Septilin group; however, highly significant leukopenia was observed in patients receiving chemotherapy alone. In patients with Wilms’ tumor and neuroblastoma, there was a significant increase in IgG, IgM, and IgA levels in patients treated with Septilin. This study supported the immunopotentiating and immunomodulatory activities of Septilin therapy and concluded that Septilin syrup is a clinically effective and safe immunomodulator, as an adjunct, in pediatric solid malignancy patients undergoing chemotherapy.

Honey-based Medication in the Management of Cough

Honey is known to offer effective relief in some diseases, including cough and upper respiratory infections (URIs) and its use is recommended by the World Health Organization. Honey has been found to possess broad spectrum antibacterial activity. In a study, it was observed that treatment with honey had greatest improvement in parent-reported cough frequency, cough severity, and quality of sleep for both the parent and the child. Honey, being the main ingredient in Koflet, offers advantages in controlling bacterial growth and treating certain health problems. Koflet syrup possesses mucolytic and expectorant properties that reduce the viscosity of bronchial secretions and facilitate expectoration and is beneficial in both productive and dry coughs. Peripheral antitussive action of Koflet reduces the bronchial mucosal irritation and related bronchospasm. In addition, the antiallergic, antimicrobial, and immunomodulatory properties provide relief from cough of varied etiology.

Clinical trial data and data on individual herbs in Koflet syrup indicate its statistically significant efficacy in the management of respiratory disorders such as cough. In a clinical study comprising 50 patients with respiratory disorders (predominantly cough), significant relief was observed in distressing symptoms of cough following treatment with Koflet. No adverse effects on leukocyte count and kidney and liver function tests were observed during the study. It facilitated easy expectoration of sputum while soothing the respiratory passages. Koflet syrup is an ideal agent that relieves cough as it has a peripheral soothing action on the respiratory passage and does not suppress the respiratory centers. It is safe and can be used in various age groups of patients.


Efficacy and Safety of Bresol Tablets in the Management of Bronchial Asthma

The aim of this study was to evaluate the efficacy and safety of Bresol tablets in the management of bronchial asthma. The study included 10 patients with complaints of difficulty in breathing, cough, wheezing, and chest tightness. Bresol tablets were administered at a dosage of 2 tablets twice daily for a period of 30 days in adults and 1 tablet twice daily for the same period in children aged 12 to 18 years. Results of the study showed a significant improvement in all the clinical parameters of asthma (Table 2). All patients completed the treatment and compliance to Bresol tablets was good, without any dropouts. This indicated that Bresol tablets are safe and effective in the treatment of patients with bronchial asthma.

Table 2. Effect of Bresol Tablets on Clinical Parameters of Bronchial Asthma

<table>
<thead>
<tr>
<th>Signs and symptoms</th>
<th>No. of patients presenting with symptoms</th>
<th>Significance (P)</th>
<th>Protection (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dyspnea</td>
<td>Before treatment: 10 After treatment: 2</td>
<td>&lt;.0007</td>
<td>80</td>
</tr>
<tr>
<td>Cough</td>
<td>Before treatment: 10 After treatment: 2</td>
<td>&lt;.0007</td>
<td>80</td>
</tr>
<tr>
<td>Wheezing</td>
<td>Before treatment: 10 After treatment: 3</td>
<td>&lt;.0031</td>
<td>70</td>
</tr>
<tr>
<td>Rhonchi</td>
<td>Before treatment: 10 After treatment: 3</td>
<td>&lt;.0031</td>
<td>70</td>
</tr>
<tr>
<td>Chest tightness</td>
<td>Before treatment: 10 After treatment: 2</td>
<td>&lt;.0007</td>
<td>80</td>
</tr>
<tr>
<td>Difficulty in expectoration</td>
<td>Before treatment: 8 After treatment: 1</td>
<td>&lt;.014</td>
<td>88</td>
</tr>
<tr>
<td>Rhinitis</td>
<td>Before treatment: 7 After treatment: 2</td>
<td>&lt;.0210</td>
<td>71</td>
</tr>
<tr>
<td>Sneezing</td>
<td>Before treatment: 8 After treatment: 2</td>
<td>&lt;.0070</td>
<td>75</td>
</tr>
<tr>
<td>Fever</td>
<td>Before treatment: 4 After treatment: 0</td>
<td>&lt;.0286</td>
<td>100</td>
</tr>
<tr>
<td>Insomnia</td>
<td>Before treatment: 2 After treatment: 0</td>
<td>NS</td>
<td>100</td>
</tr>
<tr>
<td>Paroxysmal nocturnal dyspnea</td>
<td>Before treatment: 8 After treatment: 2</td>
<td>&lt;.0070</td>
<td>75</td>
</tr>
<tr>
<td>General weakness</td>
<td>Before treatment: 4 After treatment: 1</td>
<td>NS</td>
<td>75</td>
</tr>
</tbody>
</table>

NS = Not significant

Tips for Better Memory

Although the aging brain remains surprisingly resilient, the part responsible for learning new information often does decline. With an adoption of few simple strategies, you can make sure your brain stores all that you want it to like the phone numbers or the name of your new colleague for easy retrieval later. Here are some tips recommended by Cynthia R Green, PhD, an assistant clinical professor of psychiatry at the Mount Sinai School of Medicine in New York City, and author of “Brainpower Game Plan” (Rodale, 2009).

Rehearse
Repeat information either out loud or to yourself. For example, if someone gives you directions or a time and place to meet, restating the information will reinforce it and make sure you have it correct.

Resize
Lists and long numbers are easier to remember, if you break them into smaller groups as you would do to recall your phone number or Social Security number. If possible, group similar items into categories. For example, divide your grocery list into shorter lists of baked goods, dairy foods, and produce.

Relate
Link the new information to something familiar. For example, when introduced to someone named Joe, you might remember the name by noticing traits he has in common with your uncle Joe, or picturing him with coffee (“a cup of Joe”). Sometimes, to remember the number 1024, you might think of the date October 24.

Visualize
Create a vivid picture in your mind of the information you want to learn. The more detailed, the better. If you want to remember a list, take this strategy a step further by devising a story or imagining a video that incorporates each of the items. The more outlandish your tale, the more likely you are to remember your list.


Health Tips

I was suffering from allergic rhinitis since last 40 years. I was using antiallergics along with nasal drops for about four to five times a day. After using Bresol tablets at a dosage of 2 tablets BID for 2 weeks followed by 1 tablet BID for past 45 days, I stopped using any antiallergics and nasal drops. I would like to thank The Himalaya Drug Company for developing such a medication for the treatment of allergic rhinitis.

– Dr Rastogi RK
Madhur Poly Clinic
7 - Nishima Complex, Nehru Colony, Dehradun

A young female aged 25 years was suffering from allergic rhinitis from a long period. She had recurrent attacks of running nose and cough. I advised her to take Bresol syrup and Septilin tablets for 3 to 4 months, regularly. She was symptom-free.

Her son aged 2 years was also suffering from recurrent attack of rhinitis and cough. I advised Septilin and Bresol syrups for 6 months. He was also symptom-free for a long period.

– Dr Vikas M Patney
Family physician
Niramay Clinic, 91, Bazarpet, Adkur
Chandgad, Kolhapur, Maharashtra

A 50-year-old female presented with chronic urinary tract infection and pus cells in urine for several years. The patient reported of using several types of antibiotics for these conditions. All antibiotics were stopped and she was advised to take 1 Septilin tablet TDS and 2 Cystone tablets TDS. It was found that pus cells disappeared within 2 months.

A 35-year-old female was suffering from dry and irritating cough since 2 months. There was no history of fever, weight loss, and hemoptysis. Cough increased early morning and late night. Investigations such as blood test and x-ray of chest showed normal results. T3, IgA, and IgM were negative. The patient was diagnosed of allergic bronchitis. The advised treatment was 2 teaspoonfuls of Bresol syrup TDS and 1 Septilin tablet TDS. Dramatic results were observed after this treatment. Dry cough was remarkably reduced within 2 to 3 days. The patient was advised to continue the same treatment for another 2 to 3 months.

– Dr Rajesh Gupta
Hans Raj Hospital
Tanki wali gali, Amritsar Road,
Moga, Punjab

Product Feedback

I was suffering from allergic rhinitis since last 40 years. I was using antiallergics along with nasal drops for about four to five times a day. After using Bresol tablets at a dosage of 2 tablets BID for 2 weeks followed by 1 tablet BID for past 45 days, I stopped using any antiallergics and nasal drops. I would like to thank The Himalaya Drug Company for developing such a medication for the treatment of allergic rhinitis.

– Dr Rastogi RK
Madhur Poly Clinic
7 - Nishima Complex, Nehru Colony, Dehradun

A young female aged 25 years was suffering from allergic rhinitis from a long period. She had recurrent attacks of running nose and cough. I advised her to take Bresol syrup and Septilin tablets for 3 to 4 months, regularly. She was symptom-free.

Her son aged 2 years was also suffering from recurrent attack of rhinitis and cough. I advised Septilin and Bresol syrups for 6 months. He was also symptom-free for a long period.

– Dr Vikas M Patney
Family physician
Niramay Clinic, 91, Bazarpet, Adkur
Chandgad, Kolhapur, Maharashtra

A 50-year-old female presented with chronic urinary tract infection and pus cells in urine for several years. The patient reported of using several types of antibiotics for these conditions. All antibiotics were stopped and she was advised to take 1 Septilin tablet TDS and 2 Cystone tablets TDS. It was found that pus cells disappeared within 2 months.

A 35-year-old female was suffering from dry and irritating cough since 2 months. There was no history of fever, weight loss, and hemoptysis. Cough increased early morning and late night. Investigations such as blood test and x-ray of chest showed normal results. T3, IgA, and IgM were negative. The patient was diagnosed of allergic bronchitis. The advised treatment was 2 teaspoonfuls of Bresol syrup TDS and 1 Septilin tablet TDS. Dramatic results were observed after this treatment. Dry cough was remarkably reduced within 2 to 3 days. The patient was advised to continue the same treatment for another 2 to 3 months.

– Dr Rajesh Gupta
Hans Raj Hospital
Tanki wali gali, Amritsar Road,
Moga, Punjab
Swimming and Slimming

Swimming can burn a lot of calories depending on the stroke and the intensity. So why does swimming usually result in less weight loss when compared to other aerobic activities, such as running, cycling, and even brisk walking? Scientists speculate that cold water dissipates much more heat from the body than air does, and that this energy loss, occurring day after day, may stimulate appetite to keep the body warm. A study from the University of Florida a few years ago, for instance, found that men who exercised in cold water also encourage the body to maintain or increase fat stores under the skin that serve as insulation. If you want to lose weight, swim in warm water or faster and longer in cold water.1

Low-back Pain? Stay Active

For about a decade ago, doctors often advised people with back pain to rest in bed or “take it easy.” A recent review by the Cochrane Collaboration showed that bed rest can be counter-productive, while staying physically active can help in reducing pain and improving mobility. Although there is no clear evidence that staying active helps people with sciatica, it is reasonable to think that staying active is likely to benefit. Physical movement may help in speedy recovery by increasing blood supply and nutrients to soft tissues in the back.3

Cell Phones and Crashes

According to new estimates by the National Safety Council, at least 28% of all traffic crashes in the United States or 1.6 million crashes every year are caused by using cell phones.1 A recent study from the University of California San Francisco tested this notion by putting 226 overweight or obese women, half of whom had hot flashes, on a 6-month weight loss program. Compared to a control group, the women who lost weight (an average of 17 pounds) reported significant reductions in hot flashes.2

Surprising Risk for Knee Arthritis

Researchers measured leg lengths of 3026 adults who had knee osteoarthritis or were at risk for developing it due to factors such as family history or obesity. Adults with one leg that was at least 0.4 inches shorter than the other were 1.5 times more likely to develop knee arthritis within 2.5 years than those without the leg-length disparity. This could probably be because the shorter leg travels faster to reach the ground and strikes with greater force, setting the stage for arthritis. Shoe inserts and physical therapy could be some corrective measures.5

Sit Less, “Break” More

Try to limit the amount of time you spend sitting, whether at a desk or in front of the television, or at least get up and take frequent breaks. This was the bottom line of a recent editorial by Swedish researchers in the *British Journal of Sports Medicine*. Sometimes it is hard to follow advice to exercise more, but just sitting less can be beneficial. Studies have linked long bouts of sitting and lack of movement with obesity, cardiovascular disease (CVD), and other chronic disorders. A recent study in circulation of 8800 Australians concluded that each hour spent watching TV daily was associated with an 18% increased risk of CVD and an 11% increased risk of death from all causes.6

References

Clinical Efficacy and Safety of Septilin Tablets in Respiratory Tract Infections: A Meta-analysis

Kshirsagar M, et al.

The aim of this study was to perform meta-analysis on the efficacy and short- and long-term safety of Septilin tablet in respiratory tract infections (RTIs), as reported in 38 published studies conducted between 1958 and 2001 in 2765 patients with RTI. Adult patients received 1 to 2 tablets, TID for 7 days to 3 months and children were administered ¼ tablet QID to 1 tablet TID for 7 days to 3 months. Improvement in symptoms, clinical recovery, and immunoglobulin levels were evaluated. Results showed statistically significant improvement in patients with RTI. Of the 1613 patients with upper respiratory tract infection (URTI), 1211 patients responded to the Septilin therapy and among the 838 patients with lower respiratory tract infection (LRTI), 720 patients responded to the therapy (Table 1). In comparative control trials, 74.42% of patients treated with Septilin improved as compared to 52.86% of patients treated with anti-allergics and antibiotics. Immunoglobulin (IgG, IgA, and IgM) levels showed significant improvement with Septilin (Table 2). Therefore, it can be concluded that Septilin tablets are safe and effective in treating RTIs.

<table>
<thead>
<tr>
<th>Table 1. Meta-analysis of Septilin in RTIs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Indication</td>
</tr>
<tr>
<td>RTIs</td>
</tr>
<tr>
<td>Upper RTI</td>
</tr>
<tr>
<td>Tonsillitis</td>
</tr>
<tr>
<td>Pharyngitis</td>
</tr>
<tr>
<td>Laryngitis</td>
</tr>
<tr>
<td>Sinusitis</td>
</tr>
<tr>
<td>Rhinitis</td>
</tr>
<tr>
<td>Lower RTI</td>
</tr>
<tr>
<td>Persistent cough (COPD)</td>
</tr>
<tr>
<td>Bronchitis</td>
</tr>
</tbody>
</table>

*P<.0001 compared to the total number of patients with RTI before treatment

<table>
<thead>
<tr>
<th>Table 2. Meta-analysis of Septilin in Immunoglobulin Levels</th>
</tr>
</thead>
<tbody>
<tr>
<td>IgG (mg/dL)</td>
</tr>
<tr>
<td>-------------</td>
</tr>
<tr>
<td>Before treatment</td>
</tr>
<tr>
<td>1456.00 ± 342.80</td>
</tr>
</tbody>
</table>

*P<.009 compared to the before treatment values; **P<.001 as compared to the before treatment values
Allergic Rhinitis and Ig Deficiency in Preschool Children with Frequent Upper Respiratory Illness

Siriaksorn S, et al.

Frequent upper respiratory illness (URI) is a common problem in preschool children. Allergic rhinitis and immunoglobulin (Ig) deficiency are usually suspected as underlying etiologies. The objective of this study is to determine the prevalence of allergic rhinitis and Ig and IgG subclass deficiency in preschool children with frequent URI.

Two thousand eight hundred and seventy-six questionnaires were distributed to the parents of children aged 3 to 6 years in 24 kindergartens. Firstly, they determined the frequency of URI in the previous year and secondly the prevalence of rhinitis according to the International Study of Asthma and Allergies in Childhood (ISAAC) questionnaire. The skin prick test (SPT) was performed and serum Ig and IgG subclasses were measured in children with frequent URI (≥10 episodes per year). Allergic rhinitis was diagnosed when the child had rhinitis in the previous 12 months and positive SPT for at least 1 aeroallergen.

Two thousand three hundred and one questionnaires (80.01%) were returned. Ninety-four out of 219 children with frequent URI participated in the study. The prevalence of allergic rhinitis in the participants was 42.55%. Exclusive breastfeeding for at least 6 months had a protective effect, while paternal history of rhinitis was a risk factor. All participants had normal serum IgG, IgA, IgM, and IgG subclass levels for age.

The prevalence of allergic rhinitis in preschool children with frequent URI in our study was 42.55%. Allergic rhinitis should be considered if they have a family history of allergic rhinitis. Immunoglobulin deficiency was not found in this study.

Nonprescription Antimicrobial Use Worldwide

Morgan DJ, et al.

In much of the world, antimicrobial drugs are sold without prescription or oversight by health care professionals. The scale and effect of this practice is unknown. The authors systematically reviewed published works of about nonprescription antimicrobials from 1970 to 2009, identifying 117 relevant articles. Thirty-five community surveys from five continents showed that nonprescription use occurred worldwide and accounted for 19% to 100% of antimicrobial use outside of northern Europe and North America. Safety issues associated with nonprescription use included adverse drug reactions and masking of underlying infectious processes. Nonprescription use was common for nonbacterial disease, and antituberculosis drugs were available in many areas. Antimicrobial-resistant bacteria are common in communities with frequent nonprescription use. In a few settings, control efforts that included regulation decreased antimicrobial use and resistance.

Epithelial–Dendritic Cell Interactions in Allergic Disorders

Strickland DH, et al.

Airway epithelial cells act through multiple mechanisms to function as an important component of the pulmonary defence strategy that is crucial to the maintenance of immune homeostasis. Dendritic cells are uniquely potent inducers of immune responses and it is increasingly clear that epithelium has the capacity to modulate the functional activity of dendritic cells, and vice versa, through production of a diverse array of mediators. Bidirectional interactions between epithelial cells and dendritic cell networks can thus impact upon the development and progression of immunity/tolerance in respiratory tissues.
Exercise for Healthy Aging, Bones, and Brain

Exercise has been previously linked to beneficial effects on arthritis, falls and fractures, heart disease, lung disease, cancer, diabetes, and obesity. Regular physical activity has also been associated with greater longevity as well as reduced risk of physical disability and dependence—the most important health outcome for older people. The following new findings move the scientific enterprise in this area further along the path toward the goal of understanding the full range of important aging-related outcomes for which exercise has a clinically relevant impact.

Midlife Exercise Linked to Better Health in Later Years
Among women who live to age 70 or older, those who regularly participated in physical activity during middle age appear more likely to be in better overall health.

Exercise Strengthens Bones, Reduces Falls
Another way exercise can improve the odds of aging well is to strengthen bones and reduce risk of falls. Women aged 65-plus assigned to an exercise program for 18 months were found to have denser bones and less likelihood of falling than women in a control group. Fractures due to falls were twice as common in the control groups compared to women who exercised.

Resistance Training may Boost Cognitive Skills in Older Women
A study found that a year of once- or twice-weekly resistance training not only strengthened the muscles of older women but also improved cognitive functions such as selective attention (maintaining mental focus) and conflict resolution.

Active Elderly at Reduced Risk of Cognitive Impairment
German researchers have reported a link between moderate or high physical activity and lower risk of cognitive impairment in older adults.


Event Calendar

1st Global Forum on Bacterial Infections
Theme: Balancing Treatment Access and Antibiotic Resistance
Date: October 3–5, 2011
Venue: India Habitat Centre, New Delhi, India
For more details, visit: http://www.globalbacteria.org/home

Allergy & Asthma in High Performance Sport
Theme: Sports-induced Immune Changes and Sports-related Allergies
Date: November 1, 2011
Venue: Governors Hall, St Thomas’ Hospital, Westminster Bridge Road, London
For more details, visit: http://www.allergyacademy.org/Courses/aahps2011/Pages/Home.aspx
Teacher: Sam, you talk a lot!
Sam: It’s a family tradition.
Teacher: What do you mean?
Sam: Sir, my grandpa was a street hawker and my father is a teacher.
Teacher: What about your mother?
Sam: She’s a woman.

A young man was walking through a supermarket to pick up a few things when he noticed an old lady following him around. Thinking nothing of it, he ignored her and continued on. Finally, he went to the checkout line, but she got in front of him.

“Pardon me,” she said, “I’m sorry if my staring at you has made you feel uncomfortable. It’s just that you look like my son who died recently.”

“I’m very sorry,” replied the young man, “Is there anything I can do for you?”

“Yes,” she said, “As I’m leaving, can you say ‘good-bye, mother’? It would make me feel so much better.”

“Sure,” answered the young man.

As the old woman was leaving, he called out, “Good-bye, mother!”

As he stepped up to the checkout counter, he saw that his total was ₹12,750.

“How can that be?” He asked, “I only purchased a few things!”

“Your mother said that you would pay for her,” said the clerk.

John: What’s the difference between mother’s and wife’s tears?
Advisor: Mother’s tears hit your heart and wife’s tears hit your pocket!

Q. What is the difference between a man buying a lottery ticket and a man fighting with his wife?
A. The man buying a lottery ticket has a chance of winning!

Wife: You tell a man something; it goes in one ear and comes out of the other.
Husband: You tell a woman something; it goes in both ears and comes out of the mouth!

Teacher: Your chemistry exercise was bad, I told you to write it 20 times. But you’ve written it only 10 times.
Jessie: Is it ma’am? Guess my maths is also bad!

A man walks into a barroom and asks for a beer. After drinking it, he looks in his shirt pocket and asks for another beer.

After drinking that one, he looks in his shirt pocket again and asks for another beer.

This happens about seven times before the bartender asks him, “Why do you keep looking in your pocket?”

The man replies, “I have a picture of my wife in there. When she looks good enough, I’ll go home.”