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Research Article

**AWARENESS & ATTITUDE OF PARENTS REGARDING  
SELF ADMINISTRATION OF ANTIBIOTICS TO THEIR  
CHILDREN****Dr. Hemandas \*<sup>1</sup>, Dr. Abdul Rehman Siyal<sup>2</sup>, Dr. Chetandas<sup>3</sup>**<sup>1</sup> MBBS (FCPS) Paediatrics department Isra University Hospital<sup>2</sup> MBBS, DCH, MD Assistant professor, Paediatrics Department LUMHS<sup>3</sup> MBBS, FCPS Assistant professor, Paediatrics Department LUMHS**Received:** 19 December 2016**Accepted:** 11 January 2017**Published:** 26 January 2017**Abstract:**

**Objective:** The objective of this study was to assess the level of awareness of parents regarding self-administration of antibiotics to their children.

**Place and Duration of Study:** This descriptive study was conducted in the pediatric OPD of LUMHS and Isra University from September 2014 unto February 2015.

**Patients and Methods:** Total 100 parents were included in the study after taking verbal informed consent. All the parents of patients were interviewed regarding self-administration of antibiotics to their children. All the information was gathered on self-designed proforma. Parents were asked regarding awareness of antibiotics like; antibiotics are used against bacterial diseases, knowledge regarding side effects of antibiotics and its resistance, and whether it should be taken without prescription etc.

**Results:** Questions were asked regarding awareness of antibiotics and it was observed that Correct answer regarding antibiotics are used by which organism was given by only 40(40%), 70(70%) parents answered incorrectly that antibiotics should always be administered in case of fever. Only 33(33%) cases answered correctly that antibiotics has side effects, 10% parents knew about antibiotic resistance. When attitude of parents was assessed than only 30(30%) parents stated that they don't give antibiotics to their children without prescription of doctor because their friends or family members had advised them. 80(80%) parents said that antibiotic should be easily available and must be sold without prescription.

**Conclusion:** Result of this study reveals that overall level of awareness of parents regarding self-administration of antibiotics to their children is very poor. They have certain myths which need to be clarifying.

**Key Words:** Antibiotics, Awareness, Attitude

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**INTRODUCTION:**

One of the greatest inventions of 20<sup>th</sup> century is antibiotics. Before the invention of antibiotics, infectious diseases lead to high mortality and morbidity throughout the world. But this situation was short lived. Nowadays antibiotic resistance is becoming a major issue of growing concern throughout the world. At present, the most commonly sold drugs are antibiotics in the developing countries without prescription. Antimicrobial resistance is dramatically increasing worldwide due to miss use of antibiotics [1]. Antimicrobial resistance to various common pathogens has reached to alarming levels in the developing countries, and this trend is further increasing. The most important reasons for the antimicrobial resistance are easy drug availability without doctor prescription, inadequate assurance of drug quality, inadequate surveillance, and self-use of medications [2]. It is estimated that approximately two-thirds of all oral antibiotics used worldwide are obtained without a prescription and are improperly used for diseases such as malaria, tuberculosis, pneumonia, and for mild childhood infections [3]. The rate of self-medication is also found to be rising throughout the world including India [4]. The prescribing patterns of antibiotics are not well controlled in many countries especially the developing ones [5]. All these factors highlight the need to explore and tackle such corrupt practices. Needless prescription of antibiotics is the main reason for the development of antibiotic resistance and both parents and pediatricians are responsible for this problem [6].

On the other side, in developing countries, problems in banning antibiotics to treat a bacterial infection due to lack of access to proper information and lack of acceptance by patients avoid the prescription of antibiotics for any infection[7]. Generally, antibiotics are accessed from residual antibiotics from previous disease or from the pharmacy without prescription [8]. Evidence from many countries shows that parents are often expected that treatment with antibiotics is common for viral infections [9]. This study was conducted for purpose of awareness assessment of parents regarding self-administration of antibiotics to their children.

**PATIENTS & METHODS:**

This descriptive study was conducted in the pediatric OPD of LUMHS and Isra University from September 2014 unto February 2015. Total 100 parents were included in the study after taking verbal informed consent. All the parents of patients were interviewed regarding self-administration of antibiotics to their children. All the information was gathered on self-designed proforma. Parents were asked regarding awareness of antibiotics like; antibiotics are used against bacterial diseases, what are side effects of antibiotics, resistance of antibiotics, whether it should be taken without prescription etc. All the data was entered on SPSS version 16. Frequency and percentages were calculated to show the results.

**RESULTS:**

Regarding educational status, 50(50%) parents were uneducated, 20(20%) had metric, 20(20%) intermediate and 10(10%) graduate. 86(86%) parents were laborer and had private jobs while 39(39%) were had government jobs.

Questions were asked regarding awareness of antibiotics and it was observed that Correct answer regarding antibiotics are used by which organism was given by only 40(40%), 70(70%) parents answered incorrectly that antibiotics should always be administered in case of fever. Only 33(33%) parents answered correctly that antibiotics has side effects, only 10(10%) parents knew about antibiotic resistance. 20(20%) parents known that antibiotics can cause allergic reactions and death. (**Table 1**)

When attitude of parents was assessed than it was found that Only 30(30%) parents stated that they don't give antibiotics to their children without prescription of doctor because their friends or family members had advised them. 80(80%) parents said that antibiotic should be easily available and must be sold without prescription. 70(70%) parents said that they get antibiotics from pharmacist without any doctor prescription. (**Table 2**)

Source of knowledge regarding was television in 10(10%), print media in 10(10%) and relatives and friends in 80(80%).

**Table 1: Awareness of parents regarding self-administration of antibiotics n=100**

Questions	Know	Don't know
Do you know antibiotics are used against bacteria?	40(40%)	60(60%)
Do you know antibiotics must always be administered according type and severity of disease?	30(30%)	70(70%)
Do you know antibiotics had multiple side effects?	33(33%)	66(66%)
Do you know the term antibiotic resistance	10(10%)	90(90%)
Do you think antibiotics are required every time the child falls sick	25(25%)	75(75%)
Antibiotics can cause allergic reactions & death	20(20%)	80(80%)
Overuse of antibiotics can reduce the efficacy	20(20%)	80(80%)

**Table 2: Attitude of parents regarding self-administration of antibiotics n=100**

Questions	NO	YES
I don't give antibiotics to my child because my friends advised me.	70(30%)	30(70%)
Antibiotics should not be sold without a prescription	20(20%)	80(80%)
If doctor don't give antibiotic to my child than I'll change that doctor	70(70%)	30(30%)
I get antibiotics from pharmacist without any prescription	30(10%)	70(90%)
Because doctor has prescribed antibiotic previously that is why every time child should get antibiotic	10(10%)	90(90%)

**DISCUSSION:**

Questions were asked regarding awareness of antibiotics and it was observed that Correct answer regarding antibiotics are used by which organism was given by only 40(40%) , 70(70%) parents answered incorrectly that antibiotics should always be administered in case of fever. Only 33(33%) parents answered correctly that antibiotics has side effects. Only 20(20%) parents knew that antibiotics can cause allergic reactions and death. Only 20(20%) parents answered correctly that overuse of antibiotics can reduce the efficacy. The fact that majority of parents admitted to self-administration of antibiotics demonstrates a lack of knowledge regarding its consequences. Same was seen in the study conducted by Stivers T et al whose results shown that majority of parents wanted physician to prescribe antibiotics as well [10]. In study conducted by Edita alili idrizi et al found that 40% of the parents demonstrated a moderate level of knowledge. They answered correctly that antibiotics should be used to treat bacterial

infection (61.2%). However, most of the parents did not know that antibiotics cannot cure viral infections (59.6%). About 48.2% of the parents were aware of the antibiotic resistance as a result of the overuse [11]. Similarly in a questionnaire conducted in Amman, Jordan[12], whose results showed that 65% parents were aware that their children may develop an allergic reaction to antibiotic and that may cause death. Results of the study conducted by in Riyadh, Saudi Arabia [13] et al showed that overuse of antibiotics results in reduction the efficacy of antibiotics, which is also in the favour of our study? Results of our study shows that only 10(10%) parents knew about antibiotic resistance while in study conducted in Hong Kong by Wun YT et al demonstrated that 91% parents knew about antibiotic resistance which may be due to their high literacy rate [14]. Results of another study conducted by Ling Oh A et al shows that about 59% and 67.2% knew that overuse of antibiotics can result in resistance [15]. In comparison to our results, study conducted by

Chan G et al also shows poor level of knowledge [16]. Results of our study demonstrated that only 30(30%) parents stated that they don't give antibiotics to their children without prescription of doctor because their friends or family members had advised them. 80(80%) parents said that antibiotic should be easily available and must be sold without prescription, 70(70%) parents said that when their child becomes ill and doctor don't give him antibiotics than we change our doctor because we think that antibiotics should be prescribed.. 90(90%) parents said that they get antibiotics from pharmacist without any doctor prescription. Differences in implementing drug regulations that affect the availability of antibiotics in different countries can play an important role in misconceptions about antibiotics [17]. Increased availability of over the counter antibiotics at the pharmacy despite the fact that this is against the law, is an important component contributing to self-medicating children with antibiotics. 90% parents in our study state that because doctor has prescribed antibiotic previously that is why every time child should get antibiotic. Similar reason is seen by the study conducted by Hafeez A et al [18]. This fact points to the problem of administering antibiotics without prescriptions by pharmacies making them available for every person. This shows that it is a major public health problem requiring attention of higher authorities to enforce regulation in order to stop this practice [19]. Mostly, pharmacy people do not ask regarding patient's allergies, did not explain potential side effects, and don't know about contraindicated antimicrobials such as tetracycline and fluoroquinolones or parenteral antimicrobials for home use. Other risks factors include masked diagnosis of infection disease drug interactions, and superinfection[20]. Furthermore, financial concerns often guide selection of low-quality antibiotics and result in short durations of treatment [21].

### CONCLUSION:

We concluded that overall level of awareness of parents regarding self-administration of antibiotics to their children is very poor. They have certain myths which should be clarified.

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