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Topics covered include: medicines utilisation, medicine management, medicines distribution, supply and administration, pharmaceutical services, professional and patient/lay perspectives, pharmaceutical public health (including, e.g. health promotion, needs assessment, health protection) evidence based practice, pharmacy education.

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about antibiotic effectiveness and correct use was poorest in respondents with the lowest level of education ($p = 0.05$). Results showed that 43% (n = 60) and 55% (n = 77) of the respondents agreed that antibiotics are effective against viruses and fungus respectively. Although over 80% (n = 112) of respondents showed understanding about antibiotic resistance, only 38% (n = 53) possessed correct knowledge on the consequences of antibiotic resistance. Respondents who were exposed to an educational campaign had more knowledge about antibiotics and their effectiveness ($p < 0.001$). Majority of respondents (70%, n = 97) indicated that they trusted their doctor when told that an antibiotic would be inappropriate for the condition presented. Nevertheless, a small but significant proportion of respondents (20%, n = 28) indicated that they still would insist on general practitioners to prescribe an antibiotic for an infection. Pharmacists, based on patients' experience of antibiotic use, were rated as the main healthcare professional that provides education on antibiotic use.

It is clear that despite recent campaigns on antibiotic awareness, there are still misconceptions about their uses and effectiveness among the public. The high level of trust of prescribers expressed by the surveyed population and the impact of awareness campaign on antibiotic knowledge should be taken into consideration by health professionals and utilised in future campaigns targeting antibiotic resistance. The survey also highlights that pharmacists can play a key role in such campaigns.

1. Department of Health. *UK Five Year Antimicrobial Resistance Strategy 2013 to 2018*. https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/244058/20130902_UK_5_year_AMR_strategy.pdf (accessed August 2014).
2. *European Antibiotic Awareness Day – European Centre for Disease Prevention and Control*. http://ecdc.europa.eu/en/eaad/Pages/Home.aspx (accessed August 2014).

Antibiotics prescribing pattern for respiratory tract infections: findings from a secondary healthcare facility in Abuja

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Rational use of medicines is a concept developed to facilitate the provision of safe medicines and quality healthcare[1]. Key elements include rational prescribing, dispensing and use of medicines. Understanding prescribing patterns is therefore critical in preventing irrational practices. This is particularly important in commonly encountered conditions, such as respiratory tract infections (RTIs), especially with antibiotics, a class of medicines with significant potential for inappropriate use. This study aimed at understanding how antibiotics are prescribed for RTIs and how they compare with international guidelines such as WHO indicators, CDC guidelines and the Essential Medicines List (EML)[2].

The healthcare facility where the study was undertaken provides primary and secondary care to legislators and staff of the National Assembly as well as their families. Following ethics approval from the National Assembly management board, a retrospective case series approach was used to collect data from medical records of patients that had been treated for RTIs between January 2012 and June 2014. A total of 465 case files were reviewed and in addition to demographic details, other relevant variables relating to antibiotics and other drugs prescribed were collected. The data were collated and analysed using SPSS package (version 17).

The classes of antibiotics used in the establishment to treat RTIs were penicillins, macrolides, fluoroquinolones, and cephalosporins. The most prescribed antibiotic was amoxicillin-clavulanic acid (28.2%) while ceftriaxone (0.4%) and cefpodoxime (0.4%) were the least prescribed. The majority of prescribed antibiotics were contained in the Essential Medicines List (96.2%). Tablets and capsules were the predominant dosage forms (53%) while parenteral preparations constituted less than 1% of the total. In terms of prescribing using either brand name of generic name only 15% were generically prescribed.

In this study, the evidence suggests that in certain aspects, antibiotics prescribing for RTIs follow relevant guidelines. While the range of antibiotics used was diverse, the findings indicate appropriate use, as only a small proportion of antibiotics were prescribed off list. The relative adherence to antibiotics listed in the EML suggests a cautious and stepwise approach to their selection. This approach has been identified by the CDC as essential in the reduction of antibiotic resistance.

The fact that less than 1% of the prescribed antibiotics were parenteral formulations also indicates adherence to WHO recommendations and clinical guidelines on their minimal use. The preponderance of brand-name prescribing in this study is however worrisome. Evidence exists which associates this practice with financial incentives from pharmaceutical companies. This practice can therefore limit access to medicines.

Adhering to the relevant prescribing guidelines can result in significant benefits for a national health system. Some advantages of adhering to these guidelines include improving drug utilisation and cost effectiveness. Targeted strategies that can help improve prescribing practices. For instance, frequent review and dissemination of relevant guidelines such as the EML can help improve the provision of affordable quality medicines to majority of the populace. Also, continuous and updated training for prescribers can improve generic prescribing.

1. WHO: The Rational Use of Drugs. Report of a conference of experts, Nairobi, 25–29 November 1985. Geneva: World Health Organization; 1987.
2. Federal Ministry of Health (FMH) 2010. *Essential Medicines List*. The Honourable Minister, Federal Ministry of Health, Abuja, Nigeria.