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Standard treatment guidelines for malaria: Challenges in its implementation in Islamabad (federal capital) and Rawalpindi (twin city), Pakistan

Dear Editor,

Rational prescribing requires that prescribers follow a standard process of prescribing in accordance with standard treatment guidelines which enables a consistent, therapeutically effective and economically efficient use of drugs. (Chukwuani et al., 2002). National treatment guidelines for malaria were designed and published in 2005 through collaborative efforts of the directorate of malaria control, WHO, technical core group and professionals from teaching institutions in Pakistan (Directorate of Malaria Control and WHO, 2005). The guidelines have been formulated through an extensive deliberation and local research carried out by renowned professional, malariologists and clinicians (Directorate of Malaria Control and WHO, 2005). But still most of the medical practitioners in Pakistan like other developing countries, are inclined to practice their own protocols to treat malaria rather than adhering to standard regimens (Nizamani et al., 2006; Meremikwu et al., 2007; Onwujekwe et al., 2009). This study aimed to assess the adherence of current prescribing practices with standard treatment guidelines and the role of malaria control program in the implementation of standard treatment guidelines for the treatment of malaria in public and private tertiary healthcare facilities in Pakistan. The WHO prescribing indicator form was used to collect data regarding current prescribing practices for the treatment of malaria. Keeping in view the federal administrative and regulatory structure of the country and due to location and operation of Malaria control program in the capital city, two main cities of Pakistan namely Islamabad (federal capital) and Rawalpindi (twin city) were selected for the study. The prevalence of Plasmodium vivax is relatively more in these two cities as being located in the province, Punjab while cases of P. falciparum are more frequently seen in

Sindh, KPK and Baluchistan. A total of 600 malaria encounters thirty from each healthcare facility were recorded from all the public and private tertiary healthcare facilities in Islamabad (national capital) and Rawalpindi (twin city) and tallied with national standard treatment guidelines for malaria. Semi-structured interviews were conducted with eight malaria control program officials, transcribed verbatim, translated into English, verified and analyzed thematically for content by experts.

Out of 600 encounters, diagnosis was written on 37.2% ($n = 226$), of the prescriptions while results of Malarial Parasite (MP) test was mentioned in only 9.2% ($n = 55$) of the cases. Malaria was being treated empirically on the basis of sign and symptoms. National standard treatment guidelines clearly indicate that if the type of malaria is not confirmed the therapy should be started with chloroquine but in most of the prescriptions artemether/lumefentrine and fansidar were used which are the choice of drugs in the case of falciparum and vivax respectively. Correct doses of anti-malarial drugs were given in 10.2% ($n = 61$), of the cases while correct frequency of anti-malarial drugs in 9% ($n = 54$), correct strength of the drugs in 9% ($n = 54$) and correct duration of drugs in 9.2% ($n = 55$) of the cases respectively. On the other hand, out of 600 encounters, in 29.1% ($n = 175$) of the cases antibiotics and in 21.6% ($n = 126$) of the cases injections were prescribed. No significant difference among the adherence of prescribers' with standard treatment guidelines in public and private healthcare facilities has been observed. The overuse of injections, antibiotics and lack of adherence of prescribers to standard treatment regimen clearly reflect the lack of knowledge of prescribers regarding national treatment guidelines for malaria. In none of the cases, dose of anti-malarial drugs were calculated on body weight. This could be due to the limited strengths of anti-malarial drugs available in the market which make it difficult for the prescriber to adhere to the standard regimen for individual patient based on his/her body weight. As a result the practitioners prescribe the available brands with available strengths. Pharmaceutical industry can play its role more positively in promoting rational drug use by ensuring

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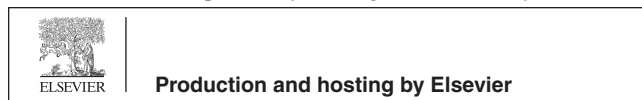
the availability of different brands of anti-malarial drugs with different strengths making it more convenient for the prescribers to adhere to the standard treatment regimen based on body weight for individual patient.

Challenge remains, though standard treatment guidelines are available, but majority of the prescribers do not follow these protocols (Nizamani et al., 2006). Malaria control program officials revealed that the reasons for such situation are the poor integration of malaria control program and its outreach, lack of effective training of prescribers on standard treatment guidelines and poor resource allocation. Political influences and lack of involvement of communities their representatives and professionals in the policy making are the main hurdles in effective implementation of standard treatment guidelines in the country (Khan and Van den Heuvel, 2007). However a strategic plan of malaria has been made which is being revised after every five years. The strategic plan includes the point that standard treatment guidelines for malaria will be implemented in the country which will control rational drug use. Training of standard treatment guidelines by the name of "case management training" will be conducted. Desk guides and manuals will be provided and one doctor at every healthcare facility will be trained for three days and later they will train their staff. In the past, the program was more concerned regarding getting things functional. But, in the future it will focus more on quality assurance, extensive and continuous on job training of prescribers to improve their knowledge and promote adherence to national treatment guidelines. This will definitely increase the capacity of malaria control program both at central and provincial level to control malaria in the country.

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