Original Article

An Appraisal of Knowledge of Village Practitioners on ARI

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Abstract

This study was done to assess the knowledge of Village Practitioners (VPs) on ARI, particularly Childhood Pneumonia, in two selected upazilla of Natore District in Bangladesh. Comparatively accurate knowledge was evident on the following aspects: name of diseases which develop pneumonia as complication (77.8%), key signs for severe pneumonia: rapid respiration (62.5%) and chest indrawing (68%), drug treatment regimen (68.1%), type of antibiotic use: Amoxycillin (79.2) and Co-trimoxazole (40.3%) and sign-symptoms for referral (61.1%). On the contrary, inaccurate knowledge was noted on following aspects: aetiologies of childhood pneumonia (52.8%), home care for pneumonic children (55.6%), prevention of childhood pneumonia (62.5%), idea about proportion of childhood mortality attributable to childhood pneumonia (80.6%), and on breathing rates which indicate rapid respiration in different age group (79.2%). Forty three percent of the respondents did not know that any EPI vaccine can prevent childhood pneumonia and 93% identified ARI as a major public health problem of Bangladesh. Orientation about and inclusion of VPs in Standard Case Management for ARI are recommended.

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Introduction

Acute Respiratory Infections (ARI) are a leading cause of childhood morbidity and mortality in the developing world, annually killing about four million children under five years of age in Asia, Africa and Latin America[1]. ARI, mainly Pneumonia, accounts for about 18% of underlying causes of death in developing countries[2]. In Bangladesh, ARI are the most common cause of death among children below five years of age. In Bangladesh more than 70% of the rural people receive health care from unqualified village practitioners[3,4].

Eventually large proportions of ARI cases are dealt with by the VPs at any of its stage. So they should have knowledge about the management of ARI, particularly pneumonia cases.

Methodology

A cross-sectional study was conducted among the unregistered village practitioners (VPs) of Shingra and Sadar upazilla of Natore district from January to May in 1995. Total sample size of the study was 72, of which 36 were pallichikitshaks and 36 were allopathic Quacks. They were selected purposively. Data were collected by a pretested self-administered questionnaire under the supervision of Government health field workers without any consultation of books or any other health personnels.

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Results

Oral amoxycillin/Ampicillin was the most frequently used drug, followed by Co-trimoxazole and Injectable Penicillin and Ampicillin. Stated use of oral Cephalexin by a good number of practitioners was noted. (Table-2).

Only 11 (15.3%) of 72 practitioner mentioned about correct drug regimen as per WHO Standard Antibiotic therapy for the first level. Fifteen percent mentioned about wrong and damaging antibiotics. (Table-3)

Table 1: Status of Knowledge of Village Practitioners on different aspects of childhood pneumonia. (n=72)

Status	Prevention of Childhood Pneumonia N(%)	EPI Vac. preventing Ch. Pneum. N(%)	Rapid Breathing Rate N(%)	Sign/Sympt of Severe Pneumonia N(%)	Home Care of Ch. Pneum. N(%)
Correct	1 (1.4%)	7 (9.8)	11 (15.2)	10 (13.9)	4 (5.6)
Partially correct	26 (36.1%)	33 (45.8)	0 (0.0)	34 (47.2)	28 (38.8)
Incorrect	45 (62.5%)	1 (1.4)	57 (79.2)	28 (38.9)	40 (55.6)
Not Known	0 (0.0%)	31 (43.0)	0 (0.0)	0 (0.0)	0 (0.0)
No response	0 (0.0%)	0 (0.0)	4 (5.6)	0 (0.0)	0 (0.0)
Total	72 (100%)	72 (100)	72 (100)	72 (100)	72 (100)

Table 2: Stated pattern of Antibiotic use in Childhood pneumonia by Village Practitioners. n=72.

Sl. No.	Drug	Frequency N	Percentage (%)
1.	Ampicillin	57	79.2
2.	Amoxycillin	29	40.3
3.	Injectable (Inj. Penicillin/Ampicillin)	18	25.0
4.	Chloramphenicol	1	5.6
5.	Others (Cephalexin/Gentamycin)	21	29.2

Table 3: Status of knowledge of Practitioners regarding Drug Treatment Regimen of childhood Pneumonia. (n=72)

Status	Pallichikitshaks N(%)	Village Doctors N(%)	Both N(%)
Correct	6 (16.7)	5 (13.9)	11 (14.3)
Partially Correct	21 (58.3)	17 (47.2)	38 (52.8)
Incorrect / Neutral	3 (8.3)	9 (25.0)	12 (16.6)
Incorrect / Damaging	6 (16.7)	5 (15.9)	11 (15.8)
Total	36 (100)	36 (100)	72 (100)

Discussion

Existence and role of rural unregistered practitioners is a reality in community medicare of developing countries like Bangladesh. Amidst dilemma whether their role should be recognized and appreciated or not; their inclusion and utilization in rural medicare has been recommended and tried in many instances[1, 3,5,6,7].

To combat the vast and complex problem of ARI at the community level, a health care person, based within, ought to be identified with following capabilities: (a) to identify mild, moderate and severe cases; (b) to use antibiotics in appropriate cases and (c) to refer severe cases immediately to recognized referral centers. Village practitioners might be those people with virtues of their social accessibility and acceptability.

Mention of use of oral Amoxycillin/ Ampicillin was most frequent (79.2%) by the practitioners followed by Co-trimoxazole (40.3%). WHO has recommended for Co-trimoxazole, as drug of choice, for the first level treatment of childhood pneumonia unless contraindicated[1]. Khan MA et al in a community based study in rural Pakistan showed a satisfactory clinical response to oral Co-trimoxazole and only 8.4% required a change of antibiotics[8].

It is evident from the study that the practitioners possessed poor knowledge about home care of the pneumonic children. While 5.6% and 38.8% have the correct and partially correct knowledge respectively; 55.6% have incorrect knowledge (Table 1). Home care that should be given by mother or other caretaker has been emphasized in the case management which includes keeping the infant warm, breast feeding and feeding child frequently, increasing fluid intake, clearing nose, soothing the throat and advice for returning quickly as child becomes sicker[1].

Mention of use of Steroid and Tetracycline by the respondent practitioner was considered as damaging. Inadequate or overdose and improper duration were features. WHO admitted that inappropriate drugs are often used for children with ARI and helpful drugs are over used, being given to cases that do not need them. One objective of ARI Program is to decrease the inappropriate use of antimicrobials and other drugs for the treatment of ARI in children.

Recognition of rapid respiration and chest indrawing as two key signs for severe and very severe pneumonia by the first level caregivers is of vital importance. In this study, 62.5% practitioners identified rapid respiration and 68% identified chest indrawing as danger signs from among multiple choices. Thirty six percent identified both two signs, whereas 59.7% identified one out of the signs and 4.2% identified none. Gadomski et al. in Egypt found that chest indrawing was not widely recognized by current primary care physicians[9].

Only 15.2% practitioners possess correct knowledge about breathing rate that indicate rapid respiration in different age groups, while 79.2% practitioners possessed incorrect knowledge (Table-1). It reveals that breathing rate is rarely used in assessing the pneumonia cases. Harrison LH et al. in Egypt in a base line survey of all health facilities in a single district found that physicians did not count the respiratory rate and check for sub-costal retraction[10]. Zentz PS et al. emphasized that community health workers should be trained how to count the respiration in children with tachypnoea and how to identify chest indrawing[11].

With regard to knowledge status on ARI, no significant difference between Pallichikitshaks and Village doctors was found (p>0.05).

Village Practitioners should be provided with training encompassing diagnostic criteria, identification of alarming signs, prevention, rational antibiotic use, home care and referral of severe cases of ARI. Village Practitioners may be included in using the Standard Case Management of ARI to increase coverage, as well as, for rationalizing their role.

Acknowledgement

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