

## Is INH Waging a Lonely Losing Battle

The Updated National Guidelines for Pediatric Tuberculosis in India, 2012, [1] has rightly emphasized, at length, the need for becoming more aggressive in our treatment of pediatric tuberculosis (dropping out 3 drugs from all regimens *i.e.* HRZ). The area of chemoprophylaxis, however, has been left untouched [except for raising the dose of INH to 10 mg/kg/day]. We all know and accept that resistance to first line AKT is rapidly emerging and the article itself acknowledges that “the drug Category III has been withdrawn in view of high INH resistance [ $>5\%$ ] in our community”. I am sure that there is a lurking fear that this figure may be much higher. In such a setting, are we justified in offering a single drug as prophylaxis? Many years ago, I had suggested that

INH may not be enough for prophylaxis [2]. Today I strongly feel that this is an idea whose time has come. Serious thought needs to be given to the case of adding a second drug so that no contact is exposed to a bacillus which is resistant to the drug he is using, thus negating any benefit to him. This scenario also exposes the contact to the risk of developing tuberculous disease and its complications.

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## Substance Abuse in Urban School Going Adolescents in India: A Growing Challenge

The epidemic of substance abuse in the young has assumed alarming dimensions in India. Changing cultural values, increasing economic stress and dwindling supportive bonds are contributing factors. The Global Youth Tobacco Survey (GYTS) showed 3.8% children to be smokers and 11.9% using smokeless tobacco [1]. Most studies in India were done on the lower socioeconomic section such as the survey by Bansal, *et al.* [2], which showed 45% street children using varied substances. Most previous studies demonstrate alcohol as the commonest substance used (60-98%) followed by cannabis (4-20%) [3].

We conducted a survey among adolescents aged 12-16 years studying in high school in three prominent urban schools in Bangalore. All participants ( $n=354$ ) (56.7% females) whose parents consented were administered a questionnaire. Results are shown in **Table I**, The most common substances abused included alcohol (28%) and glue-sniffing (20.2%), with a near equal gender

distribution. 15.4% reported a relative and 15.3% a peer as the first person to introduce them to the substance. The most common reason for using any substance was “curiosity” to try a new substance in 16.9% cases, “enjoyment” in 12.2% and “to be accepted by others” in 12%. Smoking and consumption of cannabis and cocaine was limited to boys only.

Contrary to the popular belief that smoking was the most common substance abused, we found prevalence of smoking to be quite low [4]. Hookah consumption was

**TABLE I** PROFILE OF SUBSTANCE ABUSE AMONG URBAN SCHOOL GOING ADOLESCENTS IN BANGALORE (N=354).

	Number (%) (years)	Median age of start of consumption (years)	Number of times consumed per wk (median)
Smoking	12 (3.4)	15	2
Hookah	22 (6.2)	13	1
Alcohol	99 (28.2)	12	1
Glue-sniffing	71 (20.2)	11	3
Cannabis	2 (0.6)	11	1
Cocaine	3 (0.9)	12	2

tried and used by a significant number of adolescents. In spite of a ban issued in Bangalore against Hookah cafes, they continue to thrive in the city and contribute to a huge number of children being addicted to the same. This; however, may not reflect the situation in other parts of India, as hookah consumption is closely linked to the availability and presence of joints in the vicinity. We also found 'sniffing' being high prevalent among urban adolescents. A previous review of all substance abuse in India has not reported this finding [5].

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## Updated National Guidelines for Pediatric Tuberculosis: Concerns Regarding Neurotuberculosis

I read with interest the recent Updated National guidelines for pediatric tuberculosis in India [1]. There are few important concerns in guidelines regarding neurotuberculosis which I wish to highlight.

First, there are discrepancies in dose ranges of isoniazid, rifampicin and pyrazinamide from the latest WHO guidelines and should be corrected. WHO currently recommends the following daily doses of antituberculosis medicines for the treatment of tuberculosis in children: isoniazid–10 mg/kg (range 10–15 mg/kg); rifampicin–15 mg/kg (range 10–20 mg/kg), pyrazinamide–35 mg/kg (30–40 mg/kg); ethambutol–20 mg/kg (15–25 mg/kg) [2]. It is important as upper end of the recommended dose range should be considered in neurotuberculosis in view of uncertain penetration of antituberculosis medicines into the central nervous system. The dose range suggested in published national guidelines probably follows WHO 2006 guidelines and should be corrected according to WHO 2009 guidelines. Second concern is regarding the duration of antitubercular therapy in neurotuberculosis. WHO recommends that duration of antitubercular therapy should be at least 12 months [3]. Similarly, a systemic review also identifies that there is no evidence base for shorter duration regime [4]. So, the recommendation of

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shorter 9 months duration is inappropriate and not evidence-based. Third, selection of third drug as ethambutol in continuation phase of previously treated cases has poor evidence-base with regard to neurotuberculosis. As pyrazinamide has better central nervous system penetration and bactericidal effect, it is probably a better choice as the third drug in continuation phase of previously treated cases.

Overall, I must congratulate authors for very comprehensive guideline and I hope the revised version would focus on the concerns regarding neurotuberculosis.

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