Male and female reproductive toxicity of pyrazinamide in pregnant females caused dose independent increase of various toxic indices were registered at these conditions. Administration of pyrazinamide produced dose-dependent spermatozoid fraction and by 86% in males' liver microsomes. In males pyrazinamide caused dose dependent increasing of Kupffer cells. At the same time NADPH-dependent lipid peroxidation was increased by 53% in pregnant females' liver microsomal Kupffer cells. Pyrazinamide caused dose dependent increasing of $\text{P}450\ 2E1$ marker in liver of male, pregnant female and embryos. This role becomes more important in tuberculosis control considering numerous treatment options available to patients. This study has demonstrated that pharmacists can be effectively used for case referral and the National TB control program needs to respond to them positively.

**Methods:** A cross sectional survey among 300 TB patients was done using a pre-coded semi-quantitative questionnaire between March and June 2007.

**Results:** Of 300 patients, 30.6% patients were diagnosed at their first point of contact with health facility. About 75.6% of patients were diagnosed by second visit, 89.3% patients were diagnosed by third visit and the remaining were diagnosed up to sixth visit. There were 326 shifts of facilities among 69.4% patients not diagnosed at first point of contact.

**Conclusions:** Patient delay in seeking care in this study was less when compared to other studies. Around two thirds of the patients had been diagnosed by their second point of contact with health facility which could be due to improved networking of private health providers for referral into government system and increased awareness of patients about DOTS facilities.

**PP-204 Male and female reproductive toxicity of antitubercular agent mediated by cytochrome P450 2E1**

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In spite of broad utilization of pyrazinamide in tuberculosis and AIDS treatment schemes its effects on reproductive function and postarity remains insufficiently investigated and present results are discrepant.

Effects of oral administration of pyrazinamide (500 mg/kg b.w., 1000 mg/kg b.w.) on liver and reproductive toxicity indices were studied in experiments on Wistar male and pregnant (1-19 days of pregnancy) female rats. Pyrazinamide caused dose dependent increasing of $p$-nitrophenol hydroxylase activity (as cytochrome P450 2E1 marker) in liver of males and pregnant females with the simultaneously activation of Kupffer cells. At the same time NADPH-dependent lipid peroxidation was increased by 53% in pregnant females' liver microsomal fraction and by 86% in males' liver microsomes. In males pyrazinamide administration produced dose-dependent spermatozoid number decreasing in epididimys. Decrease of spermatogonia number and compensatory increase of 12th meiosis stages with synchronous dystrophic changes of spermatogenic epithelia also were registered at these conditions. Administration of pyrazinamide in pregnant females caused dose independent increase of preimplantational and postimplantational embryos death. In conclusion, this study provides evidences in support of the role cytochrome P450 2E1 in the reproductive toxicity of xenobiotics, which metabolised with the participation of this isoenzyme.

**PP-205 Private pharmacies in tuberculosis control: a survey to explore possibility of involving pharmacists in DOTS program in Chennai, India**

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**Background:** The study was done to evaluate the dispensing practices of anti-tuberculosis (TB) drugs by private pharmacies and the feasibility of involving them in DOTS (Directly Observed Treatment, Short course) program between April 2006 and August 2007 in Chennai city, India.

**Methods:** Among the 1925 pharmacies registered under Pharmacy Association of Chennai under 10 Corporation zones, 402 pharmacies selected by stratified sampling technique from 4 zones were interviewed with a pilot tested semi-structured questionnaire. They were then sensitized on their role in the DOTS program through workshops and one to one visits and were invited to contribute to the program by educating patients and by referring patients to appropriate treatment facilities.

**Results:** Among the 402 pharmacies, 89% of pharmacists were aware of symptoms of TB and 48% were aware that TB was diagnosed by sputum examination. While 90% of the interviewed pharmacies were dispensing anti-TB drugs, only 27% of them knew about DOTS program. However, almost all of them were willing to participate in the DOTS program. About 101 TB suspects were referred from 64 pharmacies in the 1-year period following their sensitization.

**Conclusion:** Private pharmacies play a key role in influencing patients’ treatment choices and in guiding them to appropriate health care facilities. This role becomes more important in tuberculosis control considering numerous treatment options available to patients. This study has demonstrated that pharmacists can be effectively used for case referral and the National TB control program needs to respond to them positively.