Safety In Mines Research Advisory Committee
Project Summary : SIM 02-08-02

Project Title:	**MONITORING AND EVALUATION OF SUSTAINED CLINICAL PERFORMANCE AND TUBERCULOSIS MANAGEMENT IN THE SA MINING INDUSTRY** (22 pages)

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Category:	Occupational Health	**Applied Research**	Occupational Diseases

Summary

SIMRAC GEN 509 enabled the Pathology Department at the National Institute for Occupational Health to upgrade the structure of the autopsy data capture sheet to produce comprehensive annual reports and conduct specific problem-orientated data analyses. It was then possible to quantify the high proportion of pulmonary tuberculosis in miners that appeared to be undiagnosed during life (˜ 60%).

SIMRAC Health 611 clearly demonstrated that significant problems exist with regard to the diagnosis of pulmonary tuberculosis (PTB). Clinicians failed to diagnose PTB in 62% of cases coming to autopsy. The results, although not unique to the mining industry, indicated a need to develop practice habits, which would improve clinical performance.

SIMRAC Health 808 explored an effective method for improving the diagnosis and management of PTB by identifying, producing and distributing appropriate educational material for implementation of best practice. A review of the literature identified process based performance review, undertaken by clinicians themselves, to be one of the most effective ways of developing successful practice habits. The products (a manual in paper format and a CD version of the performance review process, four posters and a bookmark) were piloted with doctors from the gold, coal and platinum industries and from small and large medical centres. They were workshopped and enthusiastically welcomed by the end-users.

The overall aims of SIM 02-08-02 were to entrench the TB Performance Based Process Review (PBPR) and to evaluate the impact of this programme.

During the course of the project, many doctors and other health professionals were trained on the PBPR programme through attendance at various presentations, as well as at on-site mine visits.

Disappointingly, and despite the efforts of the study team, the mine doctors did not independently participate in the review exercise and submit the review forms. This was primarily due to time constraints and other clinical responsibilities. The literature confirms that these are common reasons for doctors not participating in quality improvement programmes.

Nevertheless, the programme appears to have, at least in part, made an impact on the proportion of missed cases of PTB, which decreased from 65% in 1999 to 54% in 2003 in the mining industry. The platinum industry was targeted in particular, as it has the highest rates of PTB, and the greatest decrease was found in these mines (from 65% to 47%). The doctors themselves were supportive of the programme and stated that it has changed their clinical practices with regard to diagnosing PTB.

Recommendations

- In order to continue this trend in the improvement of PTB diagnosis, the PBPR programme should continue to be marketed in the mining industry.
- Mine doctors should be encouraged to access the information on the website.
- Those hospitals where the greatest improvement took place were notable for the enthusiasm displayed for the PBPR programme by the senior staff members. Thus the support of senior doctors at mines hospitals should be garnered to ensure improved clinical practice with regard to the diagnosis of TB.