

Investigating TB infection control knowledge, practices and environment in the medical outpatient department at Pelonomi Hospital

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Background and Objectives

Healthcare workers (HCW) are at greater risk of exposure to Tuberculosis (TB) than the general population. Pelonomi is a large regional hospital in Free State province where 60 new TB patients are registered in the medical outpatient department (OPD) each month. This study aims to make recommendations to management regarding TB infection control practices based on knowledge and practice questionnaires and observations.

Methods

Anonymous, self-administered questionnaires assessing knowledge and self-reported practice regarding TB infection control were distributed to all staff in OPD (n=21). A workplace assessment/observation checklist to assess managerial, administrative, environmental and personal protective equipment hazards and best practices was also conducted. These tools were used to identify gaps in infection control practices, document areas for improvement and implement change management processes. Questionnaire analysis was done using SPSS.

Results and Discussion

The response rate was high (91%). Most questionnaire respondents were female (71%), many were nurses (33%) and a large proportion had worked in the facility for several years (median =18 years, range=2-42 years). Only 24% reported that they were screened annually for TB. Approximately half of the respondents (47%) answered questions related to personal protective equipment (PPE) correctly. Impressively, 78% stated that they knew when and how to control hazards at the source, however, only 33% answered questions related to hand hygiene correctly. Nineteen percent of respondents knew when and how to use other PPE such as eye protection. Questions assessing infection control practice demonstrated inadequate and inappropriate use of N95 respirators when caring for patients with TB. However, 84% of respondents reported that they asked coughing patients to practice respiratory etiquette. Most observations were positive (e.g. signage for cough etiquette was displayed, coughing patients were separated and "fast tracked", etc). Hazards identified included: the sputum collection area was inaccessible and full of debris, a lack of non-latex gloves and the use of spirometry room as an office as well.

Conclusions and Recommendations

Training is necessary for OPD staff on personal protective equipment and hand hygiene to improve low knowledge scores. Model infection control practices observed in OPD should be applauded and replicated in other areas. Environmental control measures should be implemented to improve sputum collection area and the spirometry room. More research is necessary to determine why yearly screening for TB is so low.