Background and Objectives

Inpatient smoking cessation programmes have been reported in literature as early as 1990. Hospitalization provides an opportunity to encourage and to engage patients in formal cessation programmes. Before the advent of hospital smoking bans, approximately 50% smoker patients stopped voluntarily during hospital stays. With implementation of hospital-wide smoking bans, the proportion of patients not smoking during hospitalization has risen to greater than 80%. Though the efficacy of inpatient smoking cessation programme is very well established in western countries, published data of smoking cessation programme in local setting is very limited. A study conducted on 425 subjects in Singapore General Hospital (SGH) from June 1996 to December 2002, the 6-month and 12-month abstinence were 30% and 32% respectively. Another prospective cohort study was conducted in TTSH under the Department of Respiratory Medicine in 2005. A total of 248 smokers admitted with primary cardiac and respiratory conditions received one hour smoking cessation counseling and motivational booklets delivered by a nurse counselor. Participants received follow-up phone calls fortnightly from the same smoking counselor. At 2 months post-discharge, 106 (43.5%) patients remained abstinent.

The objectives for this study are:

• To determine the effectiveness of opportunistic intervention for smoking cessation among hospitalized smoker patients.
• To determine the abstinence rates of smokers identified in the wards.

Methodology

A prospective cohort study was carried in 19 wards in Tan Tock Seng Hospital from 1st June 2004 to 31st September 2005. Only smoker patients who were admitted directly to the wards were included in the study. Ex-smokers and patients whose smoking status could not be determined due to unresponsiveness or language barrier were excluded. Staff nurses identified smoking patients on admission and all identified smokers were given educational materials and brief advice on smoking. Patients who wanted to quit were given face-to-face bedside counseling (intensive intervention) by pharmacists or nurse clinicians. They were followed up through phone calls at 3 and 6 months post intervention to determine self-reported smoking status. Audits were carried out randomly in the wards to determine the compliance rates in identifying the smokers. Figure 1 shows a diagrammatic representation of the methodology used.

Outcome Measures and Definitions

Primary outcome measures were 3-months and 6-months self-reported abstinence rates. Successful quit attempt at 3-month was defined as complete abstinence in the past week at point of the follow-up telephone call and a maximum of 2 lapses (smoking a maximum of three cigarettes per time) during the past three months from the point of first counseling session. Successful quit attempt at 6-month was defined as abstinence in the past week at point of follow-up telephone call and a maximum of 3 lapses (smoking a maximum of three cigarettes per time) during the past six months from the point of first counseling session.

Results

2233 smoker patients were identified during the study period of fifteen months. 499 (22.35%) received intensive intervention. The quit rates of those who received intensive intervention were 28.4% at 3-months and 26.82% at 6-months. Figure 3 shows a graphical plot of the quit rates (3, 6, 12-months) over time with most months hitting above 20% as target set. 3-months abstinence rates were shown till September 2005 and 6-months abstinence rates were shown till June 2005. Data collection is still on-going currently.

Conclusions

The inpatient smoking cessation programme in Tan Tock Seng Hospital was effective in achieving abstinence rates of at least 20% at 3-months and 6-months which were comparable to international and local smoking abstinence figures. Inpatient smoking cessation interventions should therefore be offered routinely to all smoker patients. The number of wards achieving 100% abstinence rates showed a significant improvement as the study progressed. Implementation of incentives to reward nursing staff for their efforts in active smoker identification and referral to counselors proved to work. The program is still on-going at Tan Tock Seng Hospital currently.

Bibliography