

Smoking status on subsequent readmission to hospital: The impact of inpatient brief interventions for smokers

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Dear Editor,

Tobacco smoking is a leading cause of preventable morbidity and mortality globally, resulting in social and economic costs, making it a focus for many countries, including Australia¹⁻⁵. One such initiative includes the implementation of smoke-free policies in hospitals, and the provision of nicotine replacement therapy (NRT) and/or brief behavioral interventions to encourage smoking cessation⁶⁻⁸.

As part of this policy and to improve the uniformity with which staff support patients to quit smoking, the Smoking Cessation Clinical Pathway (SCCP) was implemented throughout Queensland Health hospitals in 2015⁹. The SCCP is a form (paper or digital) that guides hospital clinicians through screening patients' smoking behaviors and then providing NRT or other support, such as Quitline referral, to facilitate smoking cessation⁹. Here we describe a brief analysis of retrospective data examining the smoking status of patients who received the SCCP and were subsequently readmitted to a large metropolitan hospital in Queensland, Australia.

Patients were excluded from the analyses if they were readmitted for less than 24 hours or were readmitted with no smoking status recorded. Patients were included if they were documented as being a current smoker in their integrated electronic medical record. Final readmission smoking status was recorded as one of three options: 1) Quit (self-reported as ex-smokers at a subsequent readmission); 2) Relapsed (patients with multiple admissions and self-reported being an ex-smoker and then a smoker); and 3) Unchanged. We calculated descriptive statistics and performed a regression analysis whose findings were largely non-significant so are not reported here.

We extracted records for 504 patients who were discharged from hospital between January and April 2016. From this sample of patients, 387 (73%) received an SCCP intervention in at least one of their admissions to hospital. At first readmission, 166 (33%) patients reported having quit smoking, while 339 (67%) reported continuing to smoke. Of the 166 that initially quit, 129 remained abstinent (78%), while 37 (22%) relapsed by their final readmission within the time period examined. Smoking cessation rates were similar among patients who had an SCCP completed at any previous admission (47% had quit, n=60), and those who did not (53%, n=69). The SCCP intervention entails provision of NRT during patient admission to assist with nicotine withdrawal as part of the hospital's smoke-free campus policy, regardless of the patient's intention to quit.

This study found that 26% of 504 patients who received a brief intervention during their hospital admission had quit smoking by a subsequent readmission to hospital, and that smoking cessation rates were similar regardless of SCCP

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completion. Limitations of this study include the lack of a comparator group and quantification of provider compliance. Future studies with a comparator group, structured follow-up of patients and a longer timeframe are planned; this preliminary investigation indicates that the SCCP may positively affect smoking cessation behavior.

Rigotti et al.¹⁰ pooled 50 studies and concluded that out of 13613 patients, experience of an intervention led to a 37% smoking cessation rate¹⁰. This rate is comparable to the reported cessation rate at 12 months for this study, providing positive evidence that supports the effectiveness of the SCCP and policy changes in Queensland Health. The results of this study highlight the importance and effectiveness of healthcare workers role in providing smoking cessation and having an institutional policy. This provides supporting evidence for other hospitals of other areas in Australia, or globally, to implement similar interventions.

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