

Using your bullets most wisely for the smoking gun

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Everyone knows smoking is bad for you. It is the leading cause of preventable death and disability in developed and developing countries. Moreover, quitting smoking generates considerable benefits in both quantity and quality of life, almost irrespective of age at quitting.¹

What is the role of doctors? As well as primary prevention, secondary and tertiary prevention to ease smoking-related suffering are increasingly important roles. As Schroeder points out, "Clinicians in general, and especially those who care for patients with smoking-related illnesses (e.g., oncologists, cardiologists, pulmonologists, emergency physicians, psychiatrists and primary care physicians), should do more to stimulate quit attempts."² Calls for increased clinician efforts to reduce smoking are based on excellent evidence that doctor interventions really do help.^{3,4} Where, when, and how much intervention is most cost-effective, are all issues that need to be established. In developed countries, most people see their general practitioner (GP) every year, so primary care has a central role in population health.

Pooled data from 17 trials of brief anti-smoking advice versus no advice (or usual care) confirms a significant increase in the rate of quitting (relative risk 1.66, 95% CI 1.42 to 1.94).⁵ Further meta-analysis of 35,000 smokers also shows a clear dose-dependent effect, with more quits following more intense intervention.⁵ However, (and crucially), these more successful intense interventions were defined as lasting longer than 10 minutes.⁶

Therefore the work reported by Neuner-Jehle *et al.* in this issue of the *PCRJ*,⁷ introducing an individualised counselling tool as a short intervention as 'time sparingly as possible', opens up good opportunities to increase both GP and patient awareness. During their 6-month study, 25 GPs randomised to the intervention of an additional visual, cardiac risk communication tool as well as the standard Opinion Sheet for smoking cessation from the IPCRG, performed on average 2.8 counselling sessions per month compared with 1.7 sessions per month by those GPs randomised to the standard IPCRG sheet alone. Although this was a 64% higher rate, the small numbers meant it was not statistically significant ($p=0.3$) despite their borderline non-inferiority power calculation. As things stand, it does

not translate into clinically meaningful benefits, with no differences in patients' motivation or satisfaction ratings between the two groups. Of course, also translating any increased motivation into quitting is the next hurdle.

Their tool⁷ applied the concept of risk, and it is commendable that this risk was based on real-life clinical data from their own country, making it much more pertinent to their patients. Although applying Swiss cardiac risk could limit generalisability, their cardiac risk increase from smoking is similar to the international trials they quoted.

In terms of limitations of their study, we would like to know more about the characteristics of the smokers; the authors say they were similar to those patients in other primary care studies but details would help us assess selection bias. Clearly these patients are younger and likely to have less co-morbidities than smokers in secondary care cessation services so we cannot generalise any service to these. However, could GPs with an interest in looking after cardiac patients have volunteered for the study? If only several smokers had had myocardial infarctions, they may have already had cardiac rehabilitation. Such patients have traditionally good quit rates and have already been very motivated, so an additional intervention may not yield much benefit. In addition, the authors raise some concerns about sustainability – noting a fall-off in activity, in both groups, from the run-in period to the study period. This should be looked at in a longer study, but most behavioural interventions wane over time as the novelty wears off, researchers leave the practice, and the next set of interventions are introduced...

Neuner-Jehle and colleagues rightly point out that the absolute number of people dying of cardiovascular disease is higher than for respiratory disease. However, the personalised risk of continuing smoking to someone with respiratory disease is higher. In England in 2011, smoking accounted for around 35% of all the deaths from respiratory diseases but smoking caused around 14% of the deaths from circulatory diseases (where other factors play bigger roles).⁸ Perhaps a similar template with a picture of a damaged lung could have a bigger personal effect on someone seeing their GP if they already had COPD.

It is surprising that the authors found no increase in smoker's motivation to quit, especially after so eloquently summarising the evidence behind similar visual communication tools. However, Fiore's meta-analysis on tobacco treatment by health professionals suggests a threshold of at least 10 minutes is needed to qualify for a more intense intervention (that gets higher quit rates) and so presumably higher motivation.⁶ Neuner-Jehle *et al.* only achieved 10 mins in the intervention group and 11 mins in the control group.⁷ This could become even more relevant, since some suggest a 'hardening' of continuing smokers is occurring.⁹ Perhaps residual smokers, now and in the future, need more intensive support above what can be offered in an average 10 minute consultation? Although more intensive interventions are more effective, they come at a higher cost than lower intensive ones¹⁰ and so may not be feasible at a population level.

Motivational interviewing can be used for recalcitrant smokers, but the stages-of-change model for smokers has been questioned

after real-life data suggests that 'unplanned' quit attempts are more successful than 'planned' ones. Hence the "catastrophe theory," where smokers have varying levels of motivational "tension" to stop, and then "triggers" in the environment result in a sudden switch in motivational state; if that switch involves immediate renunciation of cigarettes, this can signal a more complete transformation.¹¹ Tailoring a visual tool to trigger a "catastrophic switch" may yield more benefits. Other visual tools could be developed for those who can't or won't immediately quit, which may be just as effective as abrupt quit dates.¹²

This pilot⁷ should be likened to a Phase 1 trial. Almost anything needing new skills and precious consultation time will encounter some resistance. This did not happen here, with a similar duration of counselling sessions and similar GPs' ratings on practicability and usefulness. This is the crux of the study. The additional tool was well used. Like any good research, it opens up more questions and opportunities. It has passed Phase 1, so now is the time for Phase 2 and onwards. Their tool could be tried instead of the IPCRG tool. They could develop aids based on other prevalent illnesses, or aids for less motivated or difficult-to-reach smokers (those with mental illness, pregnant smokers, manual workers and ethnic minorities) where smoking rates and health inequalities continue to grow. Neuner-Jehle's team needs to continue this work. As former Australian Health Minister Nicola Roxon has said, "We are killing people by not acting."¹³

Conflicts of interest The author declares that he has no conflicts of interest in relation to this article.

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Poor reporting may infer poor science: lessons learned from asthma trials

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High-quality studies are generally considered the best directors of medical decision-making and policy development. Although the randomised controlled trial (RCT) is the gold standard for intervention research, flaws in methodology and trial processes can severely affect the validity of its findings. Assessment of trial validity can be further hampered by poor reporting of its design and findings. The Consolidated Standards of Reporting Trials (CONSORT) Statement was developed and subsequently updated in an attempt to increase insight into the validity of RCTs by providing guidelines for their reporting.¹ CONSORT provides a checklist of key items that