

Clinical and scientific letters

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Smoking: keeping the joint alight

The topic of smoking seems to be quite controversial of late, with the health hazards being advertised across the board, from smoking cartons to billboards. Despite the increased publicity and warnings, people at large continue to smoke. This is of significant concern considering the health risks of smoking. Smokers reduce their life expectancy by ten years compared to non-smokers, with death being attributable to cardiac, vascular, pulmonary and cancer-related conditions.

Smoking is a recognised risk factor in atherosclerosis, cardiovascular disease, chronic obstructive pulmonary disease (COPD), lung cancer and rheumatoid arthritis (RA). Rheumatoid arthritis alone can contribute to cardiovascular disease. Patients with RA have a two-fold risk of developing a myocardial infarct or a stroke.¹ Therefore, the combination of smoking and RA significantly increases cardiovascular risk.

A recent spot audit to assess the efficacy of the clinician providing smoking cessation advice was performed in our rheumatology clinic. The results proved dismal and potentially reflect current medical practice across London. Twenty-five sets of patient notes of RA patients and 25 sets of patient notes of psoriatic arthritis patients were audited. The objective was to assess whether the patients were active smokers and whether smoking cessation advice had been encouraged and documented. Cessation advice was given in 0% of cases. However, this may be an inaccurate figure, reflecting

flaws in the documentation of verbal advice given to patients in the pressured outpatient setting. In reality, one would hope that doctors and health clinicians encourage smoking cessation more frequently in this environment.

The audit was performed to highlight the importance of smoking cessation in patients with inflammatory types of arthritis, especially RA. In keeping with National Rheumatoid Arthritis Society (NRAS) educational material, smoking increases the risk of developing RA by 50%, as well as decreasing the efficacy of treatment, leading to more severe RA in smokers rather than non-smokers.²

Although the pathogenesis is unclear, the pro-inflammatory effect of cigarette smoke on tissue joints is one contributing factor. Smoking upregulates cyclooxygenase (COX)-2 in the oral mucosa in response to increased epidermal growth factor signalling. The upregulation of COX-2 receptors may also occur in the joints.³ Smoking also induces the expression of rheumatoid factor, even in patients without RA.⁴ A nationwide study from Denmark highlighted that patients who smoke heavily and are homozygous for the shared epitope have an increased risk of anti-CCP antibody positive RA.⁵ The strongest association is noted between PTPN22, smoking and anti-CEP-1.⁶

The benefits gained from treating RA are reduced by the effect of smoking. Saevarsdottir *et al* demonstrated that at three months smokers had a lower response rate to treatment than non-smokers.⁷ Further studies showed that active smoking could be used as a predictor of poor response to treatment, even at 12 months.⁸

Smoking not only contributes to the susceptibility of RA and accelerates cardiovascular risk, it also decreases the efficacy of treatments. Education is paramount, as 60% of smokers do not perceive increased health risks secondary to smoking.⁹ We would urge clinicians to encourage their patients to stop smoking and provide them with smoking cessation advice in verbal and written form. There can be no doubt about the benefit of stopping smoking and we should be actively promoting smoking

cessation in our rheumatology clinics and outpatient practices.

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References

- 1 Dhawan SS, Quyyumi AA. Rheumatoid arthritis and cardiovascular disease. *Curr Atheroscler Rep* 2008;10:128–33.
- 2 Silman AJ, Newman J, Macgregor AJ. Cigarette smoking increases the risk of rheumatoid arthritis: Results from a nationwide study of disease-discordant twins. *Arthritis Rheum* 1996;39:732–5.
- 3 Moraitis D, Du B, De Lorenzo MS *et al*. Levels of cyclooxygenase-2 are increased in the oral mucosa of smokers: evidence for the role of epidermal growth factor receptor and its ligands. *Cancer Res* 2005;65:664–70.
- 4 Majka DS. Cigarette smoking and the risk of systemic lupus erythematosus and rheumatoid arthritis. *Ann Rheum Dis* 2006;65:561–3.
- 5 Pedersen M, Jacobsen S, Garred P *et al*. Strong combined gene-environment effects in anti-cyclic citrullinated peptide-positive rheumatoid arthritis: a nationwide case-control study in Denmark. *Arthritis Rheum* 2007;56:1446–53.
- 6 Mahdi H, Fisher BA, Källberg H *et al*. Specific interaction between genotype, smoking and autoimmunity to citrullinated alpha-enolase in the etiology of rheumatoid arthritis. *Nat Genet* 2009;41:1319–24.
- 7 Saevarsdottir S, Wedrén S, Seddighzadeh M *et al*. Patients with early rheumatoid arthritis who smoke are less likely to respond to treatment with methotrexate and tumor necrosis factor inhibitors: Observations from the Epidemiological Investigation of Rheumatoid Arthritis and the Swedish Rheumatology Reg. *Arthritis Rheum* 2011;63:26–36.
- 8 Söderlin MK, Petersson IF, Geborek P. The effect of smoking on response and drug survival in rheumatoid arthritis patients treated with their first anti-TNF drug. *Scand J Rheumatol* 2012;41:1–9.
- 9 Ayanian JZ, Cleary PD. Perceived risks of heart disease and cancer among cigarette smokers. *JAMA* 1999;281:1019–21.

Is it time to replace the bleeper system with smart phones?

The 'bleeper' system has been in place for a long time, but it has its limitations. For example the range of beepers is limited, beepers are unable to receive text messages and there is no way of knowing whether or not the bleeper-holder is busy. During the last decade mobile phones have revolutionised the way we communicate and the introduction of smart phones has brought medical information to our finger tips. So could smart phones replace the beepers in our day-to-day work? To explore this we undertook a survey to find out whether physicians are already using smart phones in the care of their patients and whether they would prefer smart phones over beepers.

We sent a questionnaire to all doctors working in the local medical directorate. We enquired about whether they use mobile phones in the care of their patients, eg for discussion with other colleagues, taking images, surfing and using medical applications. We also enquired about whether they would prefer smart phones instead of beepers.

52 out of the 80 physicians questioned responded. These included 24 (46%) consultants, 8 (16%) middle grade doctors

(specialist registrars and specialist doctors and associate specialists) and 20 (38%) junior doctors (foundation year and core medical trainees).

13/24 (54%) consultants regularly use their mobile phones to deal with patients' care and 18/24 (75%) would prefer replacing beepers with smart phones. 4/8 (50%) middle grade doctors use mobile phones in patients' care and 6 (75%) would prefer a smart phone. 8/20 (40%) junior doctors use mobile phone in patients' care and 10 (50%) would prefer to use a smart phone.

The clinical uses of mobile phones included contacting clinicians to discuss patients' care (when not on site and during oncall), to take pictures for specialist opinion (eg skin disorders, photographs with clinical signs and videos), to surf the internet to seek medical information (Google, BNF, UpToDate) and to use applications like clinical scoring systems (eg NIH stroke scale, CHADS2VASc).

Our survey revealed that around 50% of medical staff use mobile phones regularly and around 75% would prefer a smart phone for clinical use. The average cost of a bleeper is around £270 (local data) and long range pagers cost an additional £20 per month for line rental. Smart phones are cheaper and have more clinical uses than a bleeper. Therefore we feel it is time to replace the bleeper system with smart phones.

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