

Snippets

Suicidal thoughts and behaviours associated with varenicline use

Depression and associated symptoms, including suicidal thoughts and behaviours, have been reported in patients using varenicline who are trying to stop smoking.¹

Varenicline (Champix) is a non-nicotine smoking cessation aid. It is a nicotinic acetylcholine-receptor partial agonist which means that in the presence of nicotine, it blocks nicotine's ability to bind at these receptors, and in the absence of nicotine, it activates these receptors.²

In clinical trials it has been shown to be more effective for smoking cessation than bupropion. However how this translates into practice is unknown, because participants in these trials received intensive counselling in combination with varenicline therapy, and this is unlikely to be provided in general practice. The effectiveness of varenicline on long-term abstinence rates beyond 12 months has not been studied.²

Varenicline is a new drug in a new class of drugs and therefore extra uncertainty exists about its safety profile. Recent concerns about varenicline have been raised in Europe and the UK, where it has been available and monitored since December 2006. There have been reports of suicidal thoughts and behaviour in association with the use of varenicline and product information for doctors and patients is currently being updated.

The following prescribing advice was provided in the latest issue of the UK Medicines and Healthcare products Regulatory Agency Drug Safety Update:¹

- Smoking cessation, with or without pharmacotherapy, may be associated with an exacerbation of underlying psychiatric illness, including depression. Care should be taken in such patients, who should be advised of this risk

- Patients should be made aware of the possibility that trying to stop smoking might cause symptoms of depression
- Patients taking varenicline who develop suicidal thoughts should stop their treatment and contact their doctor immediately

Similar early reports of psychiatric adverse effects associated with varenicline use have been published in Australia and the United States of America.^{2,3}

The most commonly reported adverse effects include nausea, headache and insomnia.

Varenicline was first marketed in New Zealand in 2007 and as it is the first medicine of this new class it is subject to monitoring on the Intensive Medicines Monitoring Programme. All clinical events in patients taking IMMP medicines, such as varenicline, should be reported.⁴

Monitor all patients using varenicline for behaviour and/or mood changes.

Note: Varenicline is not currently funded in New Zealand and would cost a patient approximately \$700 for the 12-week recommended course. Nicotine replacement therapy is currently recommended as first line therapy for smoking cessation.

References:

1. Medicines and Healthcare products Regulatory Agency (MHRA). Drug Safety Update 2008; 1(7): 3-4. Available from: <http://www.mhra.gov.uk/drugsafetyupdate>. Accessed February 2008.
2. National Prescribing Service (NPS) RADAR. Varenicline (Champix) for smoking cessation. Available from: <http://www.npsradar.org.au/>. Accessed February 2008.
3. FDA Alert. Available from: <http://www.fda.gov/cder/drug/infopage/varenicline/default.htm>. Accessed February 2008).
4. Medsafe. Intensive Medicines Monitoring Programme (IMMP) 2007. Available from: <http://www.medsafe.govt.nz/profs/adverse/IMMP.asp>. Accessed February 2008.

Subsidised nicotine replacement therapy is provided by more health professionals

The Ministry of Health has widened access to subsidised nicotine replacement therapy (NRT) by including all GPs, midwives, dentists, optometrists and nurse practitioners in its Quit Cards (NRT) programme.¹

The Quit Cards provide nicotine patches and gum at a subsidised price; an eight week supply of patches or gum costs between \$10 – \$20. Subsidised nicotine lozenges are likely to become available on the programme mid 2008.

Quit Cards were distributed to health practitioners in late January 2008. Previously the Quit Cards were available via the free phone helpline or provided by health professionals who had completed the one day training course. This means about 15,000 health practitioners will be able to distribute the Quit Cards, without having to attend the training course, providing wider access to subsidised nicotine replacement therapy.¹

This follows the release of the Smoking Cessation Guidelines which were discussed in BPJ 10 (December 2007). The guidelines stated that NRT approximately doubles the chances of long-term abstinence.²

References:

1. Ministry of Health. Media Release: Wider access to subsidised nicotine replacement therapy, December 2007. Available from: <http://www.moh.govt.nz/moh.nsf/indexmh/subsidised-nicotine-replacement-therapy-17dec08>. Accessed February 2008.
2. Ministry of Health. New Zealand Smoking Cessation Guidelines 2007. Available from: <http://www.ndp.govt.nz/moh.nsf/indexcm/ndp-tobacco-resources-tobacco-cessation>. Accessed February 2008

Snippets

Telling smokers their lung age increases their chance of quitting

Researchers in England have evaluated the impact of telling patients their estimated lung age as an incentive to quit smoking. In this randomised controlled trial, all participants were offered spirometric assessment of lung function, with the intervention group receiving their results in terms of lung age. The control group received their results as a forced expiratory volume at one second (FEV1) value only. Both groups were advised to quit and offered referral to smoking cessation services.

Lung age: the age of the average healthy individual who would perform similarly to them on spirometry

They found that receiving spirometry results as lung age was associated with an absolute reduction of 7.2% in smoking rate compared to receiving test results as raw FEV1 data; 13.6% of the intervention group had quit smoking compared to 6.4% of the control group. Those with worse spirometric lung age were no more likely to have quit compared with those with normal lung age. The number needed to treat (NNT) for the intervention to achieve one additional sustained quitter is 14.

The researchers concluded: “Telling smokers their lung age significantly improved the likelihood of them quitting, but the mechanism by which this intervention achieves its effect is unclear.”

Comment: While the researchers did not compare giving lung age against other forms of counselling or pharmacological agents, the study shows that presentation of information in an understandable and visual way that patients can relate to, seems to encourage higher levels of successful smoking cessation. This intervention may be limited by access to spirometry in a New Zealand general practice setting.

Parkes G, Greenhalgh T, Griffin M. Effect on smoking quit rate of telling patients their lung age: the Step2quit randomised controlled trial. *BMJ* 2008;336:598-600.

Available from

<http://www.bmj.com/cgi/content/abstract/336/7644/598>

Lung age calculation tables

Bpac has developed this table based on the formulae from this study. This table is for patients with an FEV1 of 3.75 litres or less. We would be interested in your feedback on this concept.

Men Lung age (years)	Lung age= $2.87 \times \text{height (in inches)} - (31.25 \times \text{observed FEV1 (litres)} - 39.375)$						
	height (cm)						
FEV1 (litres)	160	165	170	175	180	185	190
3.75	24	30	36	41	47	52	58
3.5	32	38	43	49	55	60	66
3.25	40	45	51	57	62	68	74
3	48	53	59	65	70	76	82
2.75	55	61	67	72	78	84	89
2.5	63	69	75	80	86	92	97
2.25	71	77	82	88	94	99	105
2	79	85	90	96	102	107	113
1.75	87	92	98	104	109	115	121
1.5	95	100	106	111	117	123	128
1.25	102	108	114	119	125	131	136
1	110	116	121	127	133	138	144
0.75	118	124	129	135	141	146	152
0.5	126	131	137	143	148	154	160

Women Lung age (years)	Lung age= $3.56 \times \text{height (in inches)} - (40 \times \text{observed FEV1 (litres)} - 77.28)$						
	height (cm)						
FEV1 (litres)	150	155	160	165	170	175	180
3.5	-	-	7	14	21	28	35
3.25	3	10	17	24	31	38	45
3	13	20	27	34	41	48	55
2.75	23	30	37	44	51	58	65
2.5	33	40	47	54	61	68	75
2.25	43	50	57	64	71	78	85
2	53	60	67	74	81	88	95
1.75	63	70	77	84	91	98	105
1.5	73	80	87	94	101	108	115
1.25	83	90	97	104	111	118	125
1	93	100	107	114	121	128	135
0.75	103	110	117	124	131	138	145
0.5	113	120	127	134	141	148	155

Notes: Height conversion: Height (inches) = Height (cm) / 2.54. Generally, a young, fit adult will have an FVC of 4-5L and the FEV1 will be at least 75% of this.