Tackling tobacco in mental health settings

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AlfredHealth

theAlfred Caulfield HOSPITAL Sandringham HOSPITAL MSHC MELBOURNE SEXUAL HEALTH CENTRE

Disclosures

In relation to this presentation, I declare the following, real or perceived conflicts of interest:

None

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Highlights

106,683
Emergency presentations
(Alfred and Sandringham)

111,923
episodes of inpatient care

11,665
elective surgeries performed

96 lung transplants **+** **20** heart transplants

9,016
employees

524
volunteers

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Our transition to Totally Smokefree – May 2008

Rapid transition – within three months

Objectives:

- To reduce exposure to passive smoke
- To demonstrate public leadership

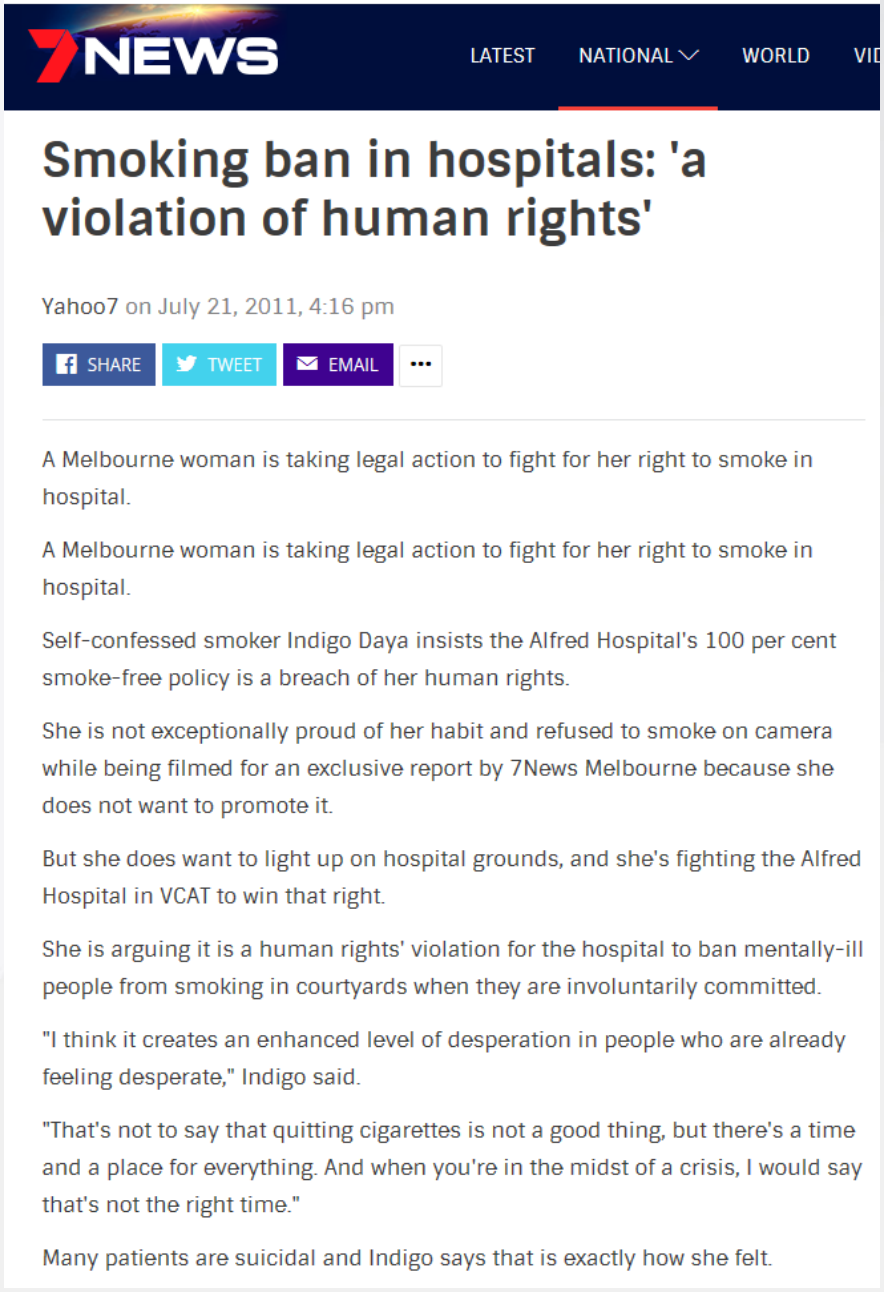
Actions:

- Policy change
- Communication strategies
- Signage

Impact:

- High awareness
- Mixed compliance
- Unchanged clinical practice

A problem - A legal challenge



7NEWS LATEST NATIONAL WORLD VID

Smoking ban in hospitals: 'a violation of human rights'

Yahoo7 on July 21, 2011, 4:16 pm

SHARE TWEET EMAIL ...

A Melbourne woman is taking legal action to fight for her right to smoke in hospital.

A Melbourne woman is taking legal action to fight for her right to smoke in hospital.

Self-confessed smoker Indigo Daya insists the Alfred Hospital's 100 per cent smoke-free policy is a breach of her human rights.

She is not exceptionally proud of her habit and refused to smoke on camera while being filmed for an exclusive report by 7News Melbourne because she does not want to promote it.

But she does want to light up on hospital grounds, and she's fighting the Alfred Hospital in VCAT to win that right.

She is arguing it is a human rights' violation for the hospital to ban mentally-ill people from smoking in courtyards when they are involuntarily committed.

"I think it creates an enhanced level of desperation in people who are already feeling desperate," Indigo said.

"That's not to say that quitting cigarettes is not a good thing, but there's a time and a place for everything. And when you're in the midst of a crisis, I would say that's not the right time."

Many patients are suicidal and Indigo says that is exactly how she felt.

A new approach- May 2012

Refresh and relaunch

Objectives:

To reduce exposure to passive smoke

To demonstrate public leadership

To facilitate smoking cessation (and manage temporary abstinence)

To denomalise smoking (prevent uptake and reduce the risk of relapse)

Actions:

Refreshed communication strategies

Clinical management of nicotine dependency – clinical guideline

Education

Impact:

High awareness

Increased compliance (but less of a focus on compliance!)

Reduced smoking around campus perimeter

Achievement of best practice clinical management

Enablers

Organisational leadership

- Problem that needs a solution
- Communicate publicly and actively
- How can we not...?

Clinical leadership

- Commit to best practice for smoking cessation
- Allocate resources – people and pharmaceutical
- Support for patients AND staff who smoke

Continuous improvement

- Measure performance- evidence of a problem does not mean failure
- Innovate – test new approaches

…and long term!

Clinical Leadership

Clearly defined clinical leadership
Everyone's responsibility can be no one's responsibility

Integrated within existing practice
Without major resource injection

Systematic

- Every person
- Every time
- Especially in those areas with greatest challenges

Measure performance

Normalise practice

Emotionally compel health professionals (starttheconversation.org.au)

Clinical management of nicotine dependency

Clinical leadership by pharmacy

- Pharmacist initiation of NRT
- Supported by nurse initiated NRT
- Within agreed treatment algorithm

All forms of NRT available

- DTC approval
- Global supply- ward imprests

Following discharge

Stop Before the Op

Smokefree outpatient clinic

Good News for Smokers

Support for inpatients

PATIENT SUPPORT

LED BY OUR PHARMACISTS, WE PROVIDE PATIENTS WITH SUPPORT BEFORE, DURING AND AFTER ADMISSION.

BRIEF **INTERVENTION ADVICE**, WHICH CAN INCLUDE STOP-SMOKING MEDICINES

OUR INPATIENTS ARE **4 TIMES MORE LIKELY TO QUIT** THAN THOSE WHO RECEIVE NO SUPPORT

x4

PROPORTION OF PATIENTS GIVEN ADVICE AND SUPPORT TO QUIT HAS RISEN FROM 14% TO **MORE THAN 95%**

95%

Stop Before the Op

2x SMOKEFREE

Patients were more than **2 times** as likely to be smokefree on the day of surgery

INTERVENTION: **23.3%** (42/181)
vs
CONTROL: **7.9%** (23/292)

4x QUIT ATTEMPTS

Patients were more than **4 times** as likely to make a quit attempt prior to surgery

INTERVENTION: **53.6%** (97/181)
vs
CONTROL: **11.0%** (32/292)

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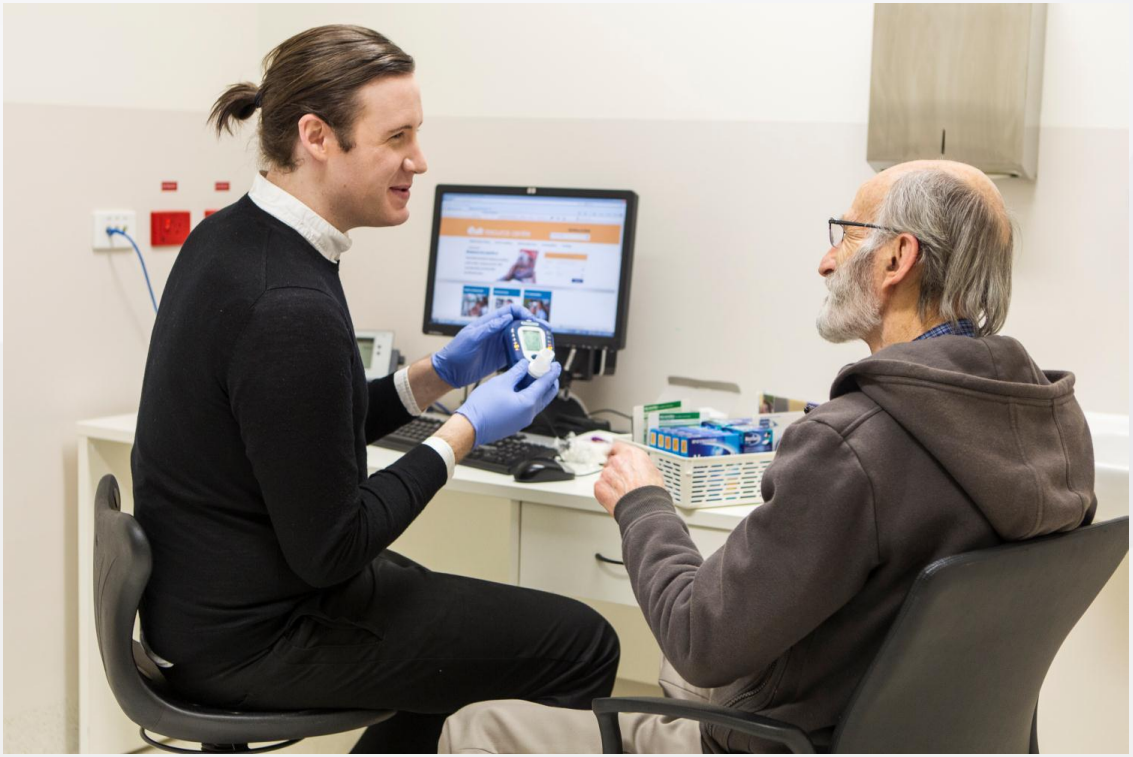
Smokefree outpatient clinic



OUR OUTPATIENT SMOKEFREE CLINIC CESSATION RATES ARE **IN THE ORDER OF 42%**

42%

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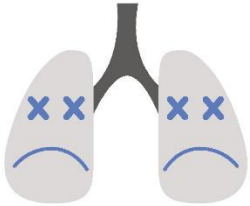
GOOD NEWS FOR SMOKERS

SUPPORTING STAFF WHO SMOKE **TO QUIT**

TOBACCO SMOKING IS A LEADING PREVENTABLE CAUSE OF DEATH AND DISEASE IN AUSTRALIA.

BUT THE COSTS OF SMOKING GO BEYOND HEALTH.



OUR 2016 STAFF HEALTH CHECK TOLD US THAT APPROXIMATELY **4.5% OF OUR 8000+ EMPLOYEES SMOKE**

THAT IMPACTS

OUR STAFF

by affecting their health and wellbeing, as well as their hip pocket

OUR PATIENTS

because healthy staff provide better care

US, AS EMPLOYERS

by costing an estimated **$3594** USD per person annually from absenteeism and loss of productivity due to smoking breaks[1]

ALFRED HEALTH VALUES THE HEALTH OF ITS STAFF. SO, WE WANTED TO SUPPORT STAFF WHO SMOKE TO QUIT...

...BUT QUITTING ISN'T EASY!

RELAPSE IS COMMON AND SOCIAL NETWORKS PLAY A BIG PART.

TO GIVE OUR STAFF THE BEST CHANCE AT QUITTING, WE CONSULTED WITH STAFF AND LOOKED AT THE EVIDENCE TO SEE WHAT WORKS.

1. Berman, 2014.

THE INITIATIVE

We developed a program to support staff who smoke to quit, following best practice.

STAFF HAD ACCESS TO:

NICOTINE REPLACEMENT THERAPY to help with cravings and withdrawal symptoms

FACE-TO-FACE OR PHONE CONSULTATIONS to give personalised advice

GROUP CONSULTATIONS for a support network through the quit journey

EMAILS AND TEXTS for ongoing support and motivation

WE ADVERTISED THE PROGRAM TO STAFF

PEOPLE JOINED FOR DIFFERENT REASONS

"TO LIVE A LONG AND HAPPY LIFE"
"FOR MY LUNGS"
" FOR MY FAMILY"
"FEEL GOOD AND SMELL GOOD"
"SAVE MONEY"

AND IT WORKED.

ALMOST 50% OF STAFF WHO JOINED THE PROGRAM REMAIN **SMOKEFREE**

50%

WHAT PEOPLE SAID

"YOU BOUNCE OFF EACH OTHER'S MILESTONES AND ACHIEVEMENTS."

"I DON'T MISS ANYTHING. I CAN STILL GO OUT WITH MY BUDDIES."

"I AM MORE PRODUCTIVE AT WORK NOW."

"GIVING UP SMOKING TURNED OUT TO BE LESS DIFFICULT THAN I IMAGINED."

FLOW-ON EFFECTS

When staff quit smoking, it not only improves their health and wellbeing and productivity at work, it also makes talking to patients about quitting easier.

COMMITTED TO BEING SMOKEFREE

WE'VE MADE OUR HOSPITAL A TOTALLY **SMOKEFREE ENVIRONMENT**.

WE'RE PROVIDING BEST-PRACTICE **SUPPORT FOR OUR STAFF** WHO SMOKE TO QUIT.

WE'RE PROVIDING BEST-PRACTICE **SUPPORT FOR OUR PATIENTS** TO QUIT SMOKING BEFORE, DURING AND AFTER ADMISSION.

FOR MORE INFORMATION CONTACT ALFRED HEALTH AT PREVENTION@ALFRED.ORG.AU

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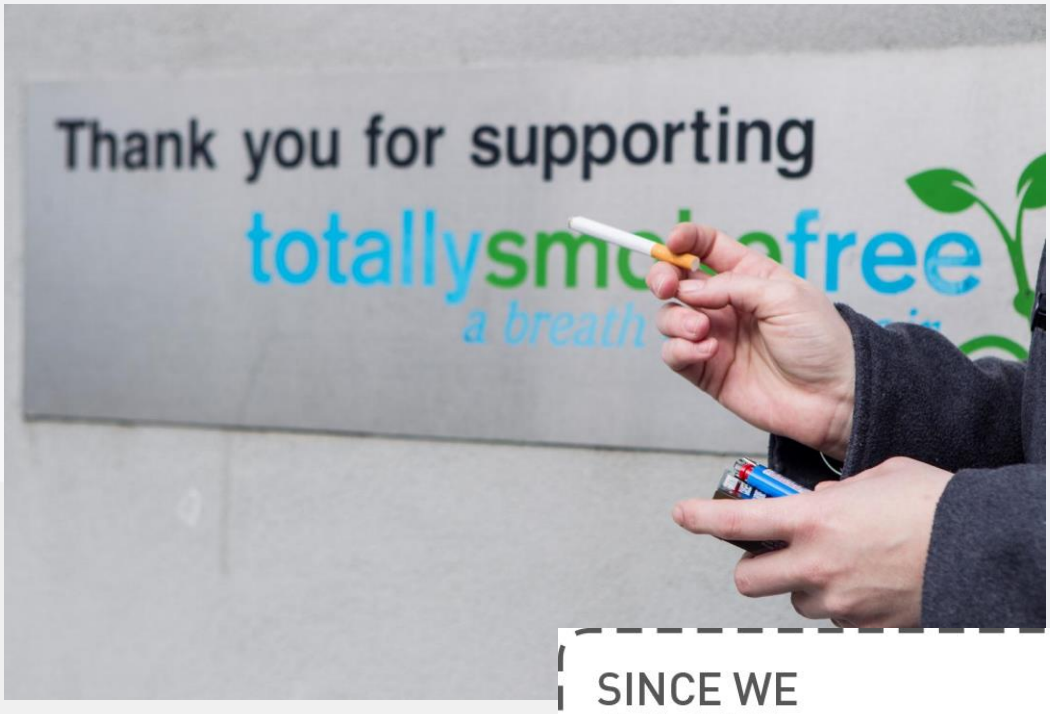
Perimeter based smoking



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Continuous improvement

Definition of "success"

Beyond compliance

Evidence of problems does not mean a policy is 'inappropriate or a failure'

Consistency

Between staff and between departments

Making an exception can be a cause of aggression

Inequalities

In smoking AND quitting

Clinical leadership

Don't let it be an OHS issue only

Influence clinical practice

A little bit of evidence

Plenty of emotion

start the conversation

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Smoking in people with mental health conditions

- **Prevalence of smoking is consistently higher among people who use mental health settings (Thomas et al. 2017)**
- **People with a mental health condition tend to smoke heavily and intensely**
- **Health is disproportionally affected**
  - Reduced life expectancy; increased risk of developing cancer, cardiovascular and pulmonary disease (2-3 times the morbidity and mortality) (Lawn et al. 2013)
- **People with a mental health condition who smoke:**
  - Experience more severe symptoms of psychosis (Aguilar et al. 2005), depression and anxiety (Taylor et al. 2014)
  - Have an increased risk of the onset of panic attacks (Breslau et al. 1999)
  - Have an increased risk of dementia (Anstey et al. 2007)
  - Spend longer time in hospital and less time out of hospital (Aguilar et al. 2005, Prochaska et al. 2014)
  - Require higher doses of some medications inc. psychotropic medications

Quitting in people with a mental health condition

- **People with a mental health condition who smoke want to quit as much as general population** (Siru et al. 2010, Siru et al. 2009)
- **Often lack confidence in ability to quit; therefore may be less likely to make a quit attempt**
- **Upon quitting:**
  - Increased life expectancy and improved physical health
  - Reduced depression (Taylor et al. 2014, Brose et al. 2010), anxiety (McDermott et al. 2013) and stress (Taylor et al. 2014)
  - Improved positive mood and quality of life (Taylor et al. 2014)
  - More disposable income
  - Dose reduction of some medications including psychotropic medicines

Smokefree policies in mental health settings

- **Challenge a long standing smoking culture**
- **Puts tobacco on part with alcohol and illicit drugs (Shetty et al. 2010)**
- **Is far from straightforward; requires substantial structural, practical and cultural change**
- **Essential part of tobacco control BUT need to be accompanied by:**
  - Nicotine dependence treatment pathways
  - Staff training and education
  - Access to pharmacotherapy
- **Total smokefree policies more effective than partial**
  - Provide consistency
  - Avoid negative consequences of persistent nicotine withdrawal
  - Minimise fire risk
  - Minimise exposure to second hand smoke

What are the benefits of smokefree mental health settings?

- **Protect from:**
  - Exposure to secondhand smoke
  - Initiation into smoking
  - Relapse
- **Clinically managing nicotine dependency during inpatient stay:**
  - Increases chances of quitting; the longer the admission the higher the quit rate (Prochaska et al. 2014, Hehir et al 2012)
  - Decreases re-admission rates (Prochaska et al. 2014)
  - Increases chances of subsequent quit attempts (Prochaska et al. 2014, Prochaska et al. 2006)
- **If implemented well:**
  - Decrease disruptions
  - Significant decrease in physical violence (Robson et al. 2017, Spaducci et al. 2017)
  - Better utilisation of staff time (Robson et al. 2016)


We are SmokeFree; you have two choices…
Quit
OR
Cope
?
Quitting is great for your health! This is a great opportunity to give it a go.
If you decide to quit, we'll offer you information, support and encouragement.
It's also OK if you just want help to cope with withdrawals during your admission.
If you decide to cope, we will offer you support to help you get through your admission.

Supporting people who smoke

- **Abstain temporarily**
- **Take the opportunity to quit completely**
- **Offer support immediately on admission, initially for ‘coping’ especially while they may be stressed or overwhelmed**
- **For many patients, it is inevitable that some patients will experience a period of enforced abstinence.**
- **However, they should NEVER be forced to experience withdrawal symptoms**
  - These are predictable, preventable and treatable.
- **NRT and behavioural support**
  - Most effective and comfortable way to support temporary abstinence
  - Duration of admission
  - Ideally within 30mins of arrival, as likely in withdrawal

Review of Clinical Aggression

Systematic audit and analysis of code greys

- Identify determinants of aggression (including smoking/withdrawal)
- The Alfred completed (n=1310, Jan-Dec 2015)
- 51% patients involved in code grey smoke
- Episodes of clinical aggression in smokers (n=81, 180 code greys):
  - NRT is recommended in 94% of cases
  - NRT use at time of code in 52% of cases
  - Clinical features of nicotine withdrawal in 81% of cases

Why is it so hard to quit?

People who smoke aren't weak nor are they simply making a bad lifestyle choice.

Smoking is a complex process made up of:

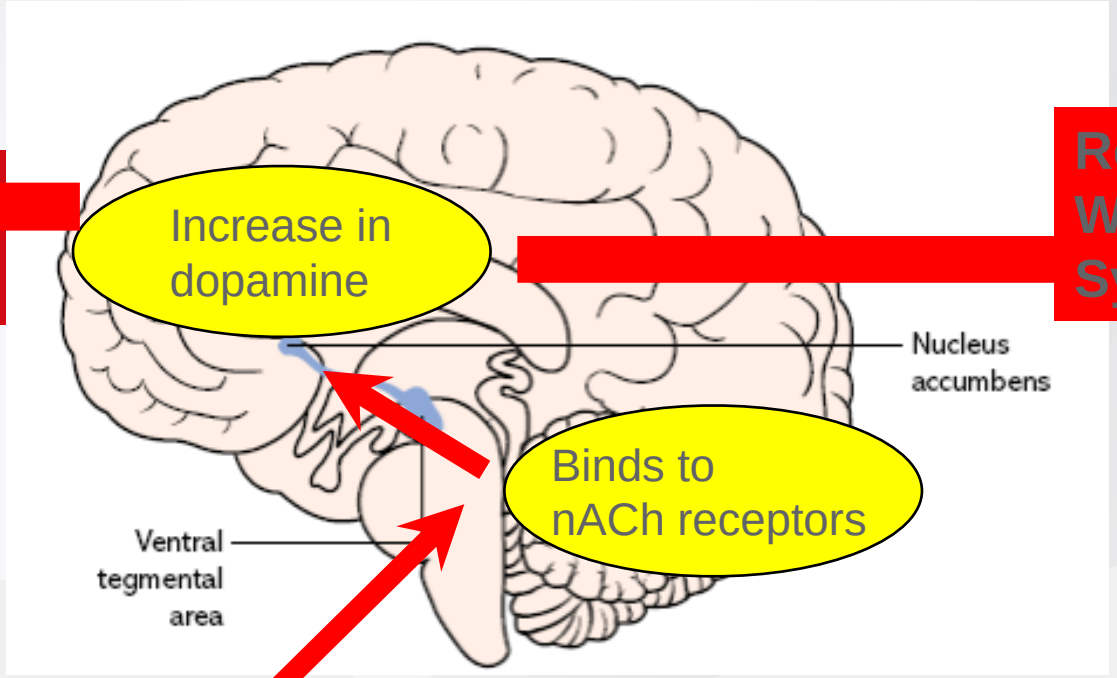
- Nicotine dependence
- Behavioural connections
- Psychological connections

Nicotine Dependence

- **Chronic medical condition with multiple cycles of relapse and remission**
  - Relapsed smokers need to be re-engaged and assisted through repeated quit attempts
- **Under recognised by health professionals**
- **Assessment is important**
- **Time to first cigarette a reliable indicator**

Questions	**Response coding**	**Score**	**Dependence score**
How soon after you wake do you smoke your first cigarette?	Within 5 minutes = 3 5 – 30 minutes = 2 31 – 60 minutes = 1 Over 60 minutes = 0		≤ 2 = very low 3 = low 4= moderate 5+ = high
How many cigarettes a day do you smoke?	10 or less = 0 11 – 20 = 1 21 – 30 = 2 31 or more = 3		
	Fagerstrom Score	/ 6	

Nicotine Dependence



Nicotine withdrawal syndrome

- **Symptoms begin within hours of quitting**
  - Dizziness, insomnia, restlessness, difficulty concentrating, irritability, increase appetite, mood changes
- **Duration and severity of symptoms are highly variable among individuals**
  - Generally worst in first 24-48 hours
- **Symptoms are usually alleviated in 2-4 weeks**
- **Background or general cravings to smoke**
  - Fluctuate over the day; will gradually disappear
- **Cue-specific cravings or triggers to smoke**
  - Arise in response to a stimuli associated with smoking
  - Fast onset, intense, short-lived

Other mechanisms underlying smoking

Psychological connection

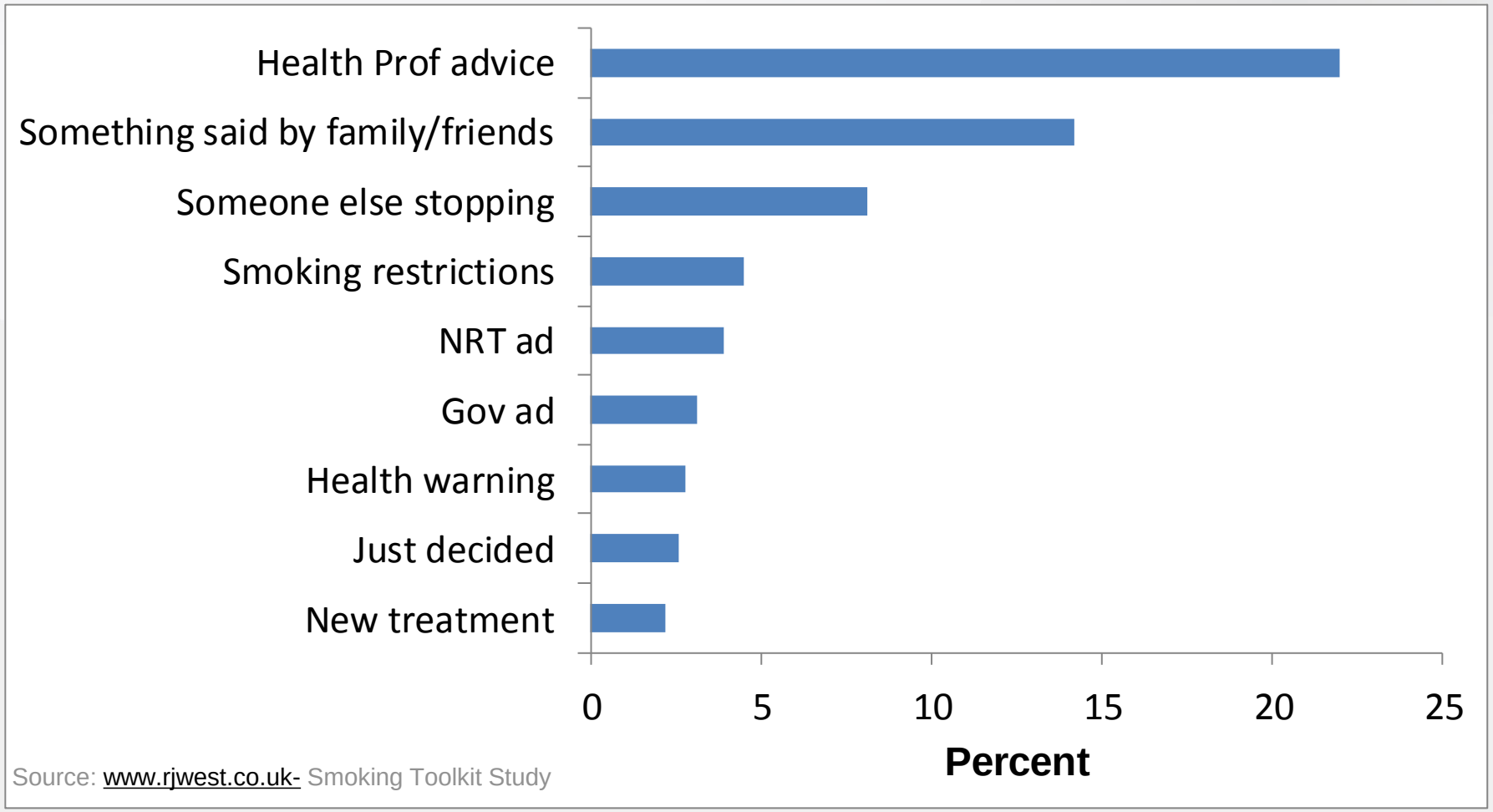
- smoking is related to how clients feel, their moods and emotions
- commonly draw a connection between smoking and stress relief, feelings of comfort and relaxation

Behavioural connections

- behaviours that are closely linked to their smoking
- connections tend to be strong and have built up over many years

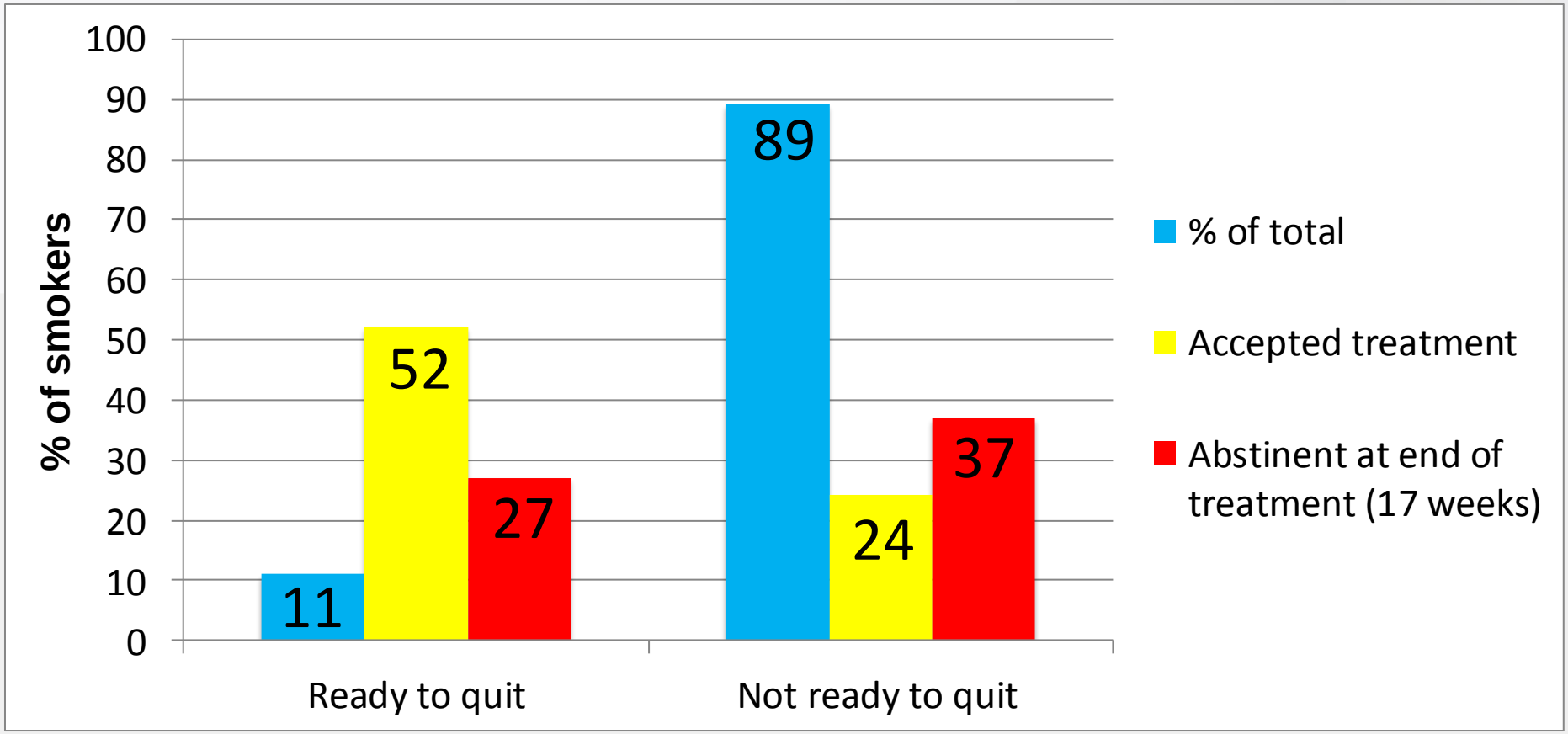
Okay so what can we do?

Health professional advice is the greatest trigger



Source: www.rjwest.co.uk- Smoking Toolkit Study

Stage of change does not matter



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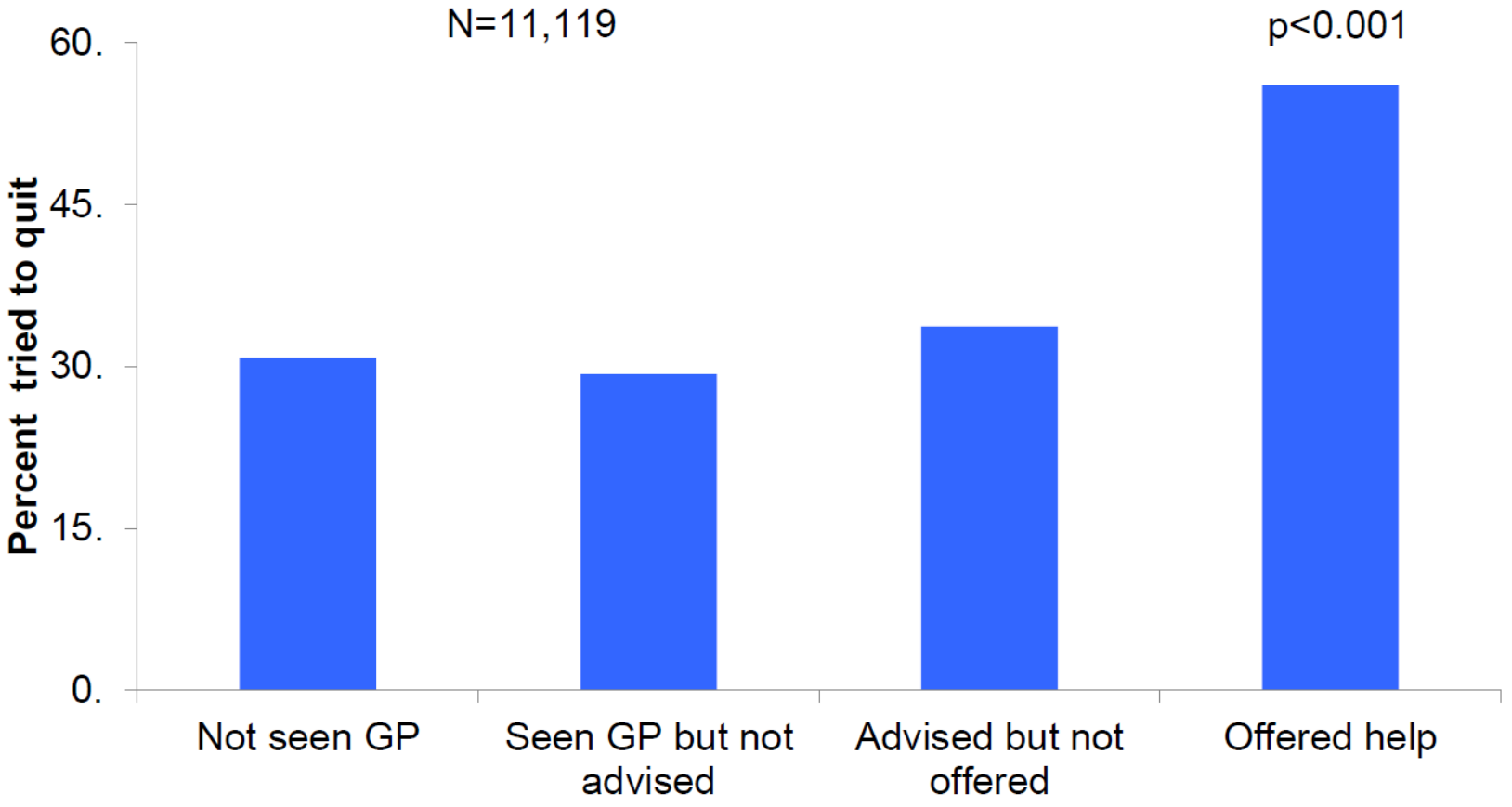
Pisinger et al. 2005

And it's the offer of support that's important



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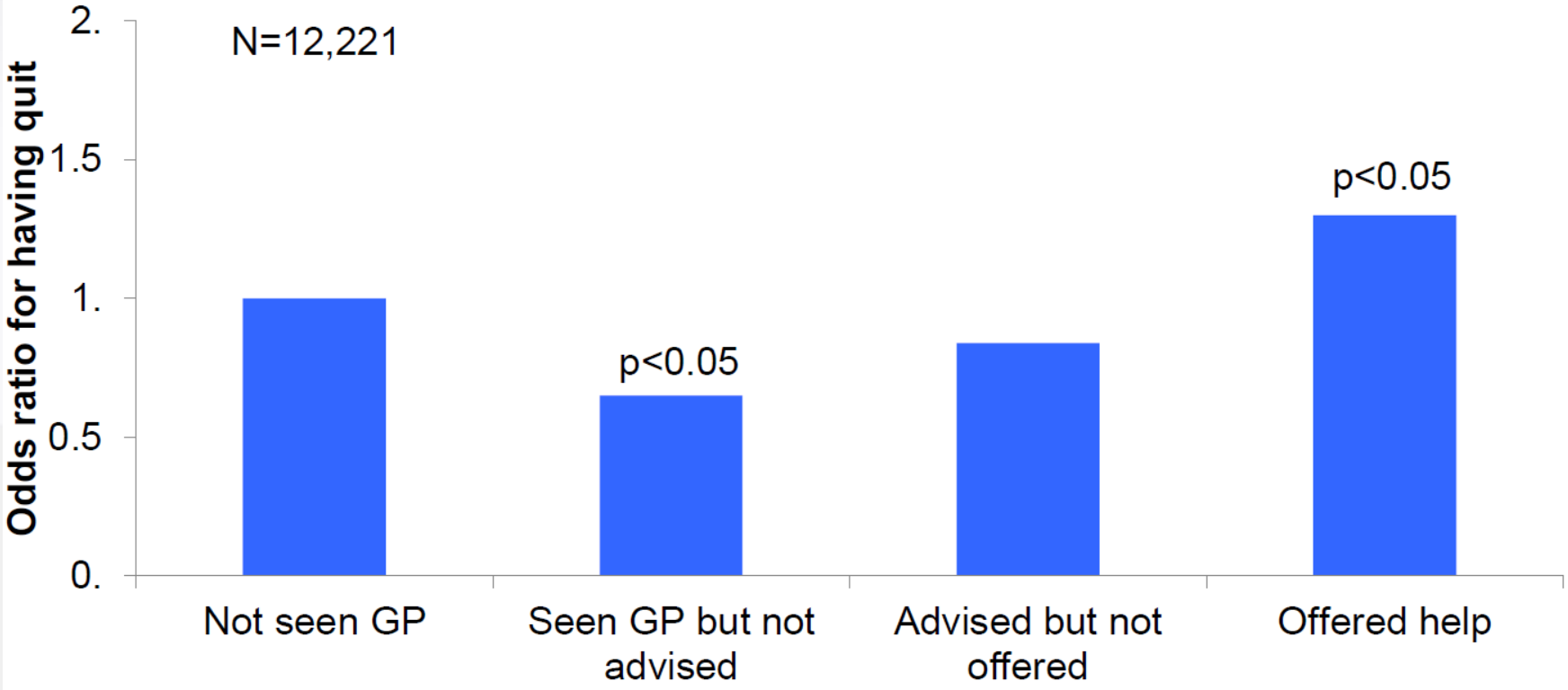
Source: www.rjwest.co.uk- Smoking Toolkit Study

Not advising may be worse than useless



Results of multiple logistic regression adjusting for age, sex and social grade

Source: www.rjwest.co.uk- Smoking Toolkit Study

Best practice for smoking cessation

- **Interventions that combine pharmacotherapy and behavioural support increase smoking cessation success in a wide range of settings and populations**
- **Need to encourage people who smoke to use both pharmacotherapy and behavioural support**

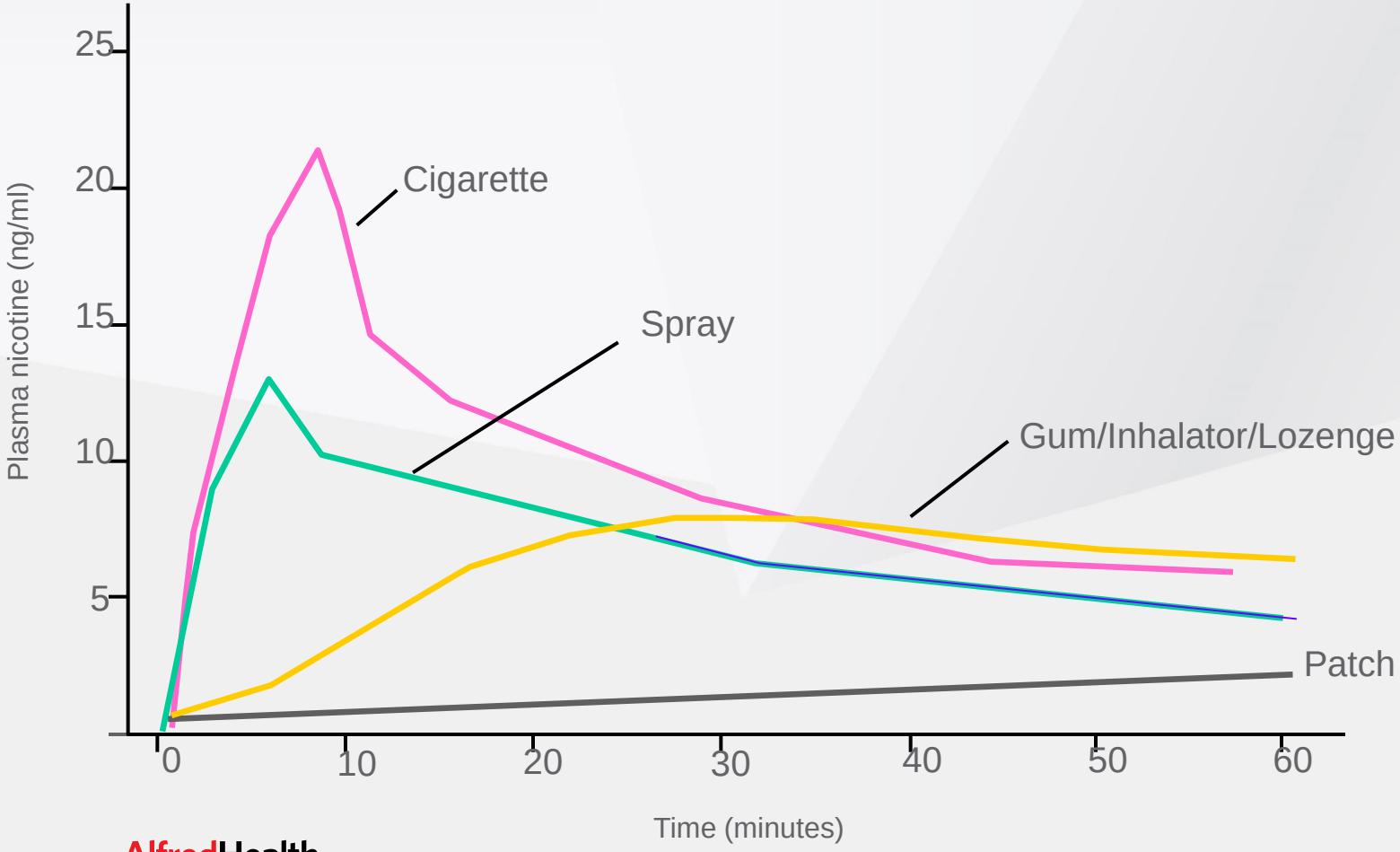
Pharmacotherapy

- **Nicotine replacement therapy (NRT)**
- **Bupropion (Zyban®)**
- **Varenicline (Champix®)**

Nicotine replacement therapy

- **Reduces motivation to smoke and the severity of withdrawal symptoms**
- **Six forms of NRT available in Australia**
  - Transdermal- patches
  - Intermittent- gum, lozenge, mini-lozenge, mouthspray, inhalator
- **Efficacy profile**
  - Increases quit rates by 50-70% compared to unassisted quitting (Stead et al. 2012)
- **Safety profile**
  - Minimal addictive potential (Zwar et al. 2006)
  - No serious side effects, usually minor and formulation related
  - Does not produce dramatic surges in blood levels
- **Best result = NRT (minimum 8/52) + behavioural support (Stead et al. 2012)**
- **There are few contraindications associated with NRT use**
- **No evidence for weaning/tapering dose (Stead et al. 2012)**

Plasma nicotine levels- single dose



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Royal College of Physicians, 2000

Combination Therapy

Patch + Intermittent

Patch: Steady protection (long acting and slow onset) to control baseline cravings

Intermittent: Quicker and more flexible relief
If possible use in anticipation of smoking trigger

- **Adverse effect profile similar to mono-therapy**

Troubleshooting

- **Misconceptions can lead to inadequate dose**
- **Side effects of NRT can be nicotine withdrawal (or incorrect use)**
- **Common to underdose on NRT (overdosing is rare)**
- **Nicotine from all the intermittent products is absorbed through the buccal mucosa→ concurrent eating an drinking should be discouraged.**
- **Being nil oral is not a contraindication; avoid gum pre-op as can increase intra-gastric volumes**

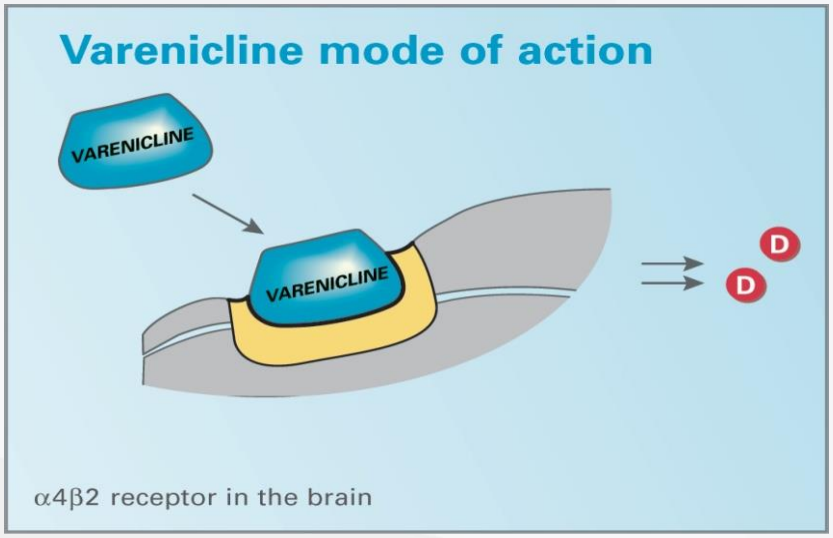
How to boost patient compliance…

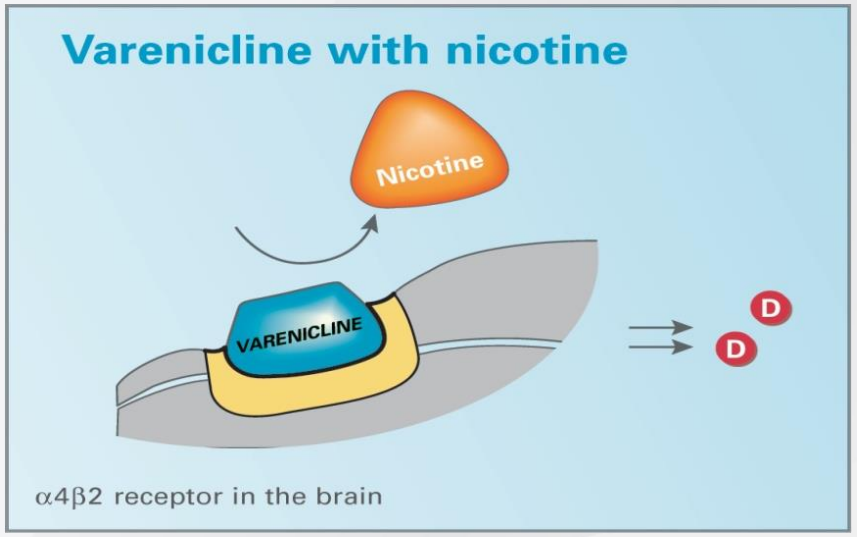
- **Concerns about safety**
  - NRT is always safer than smoking
  - Safety profile- does not cause cancer, lung disease, cardiovascular disease
- **Concerns about the addictiveness of NRT**
  - Minimal addictive potential
- **Lack of confidence in efficacy**
  - Proven effective (significant increases chances of quitting); minimises nicotine withdrawal symptoms
- **Not using enough**
  - More effective when dose titrated according to response
- **Stopping NRT too early**
  - Needs to be taken for long enough to start to address other drivers of smoking
  - Best not to cease until patient can resist cravings in situations

How to boost patient compliance….

- **NRT is not working**
  - May require increased dose (combination therapy, more doses of intermittent, second patch)
  - Are the products being used correctly?
  - Consider change to varenicline
- **Side effects**
  - Decrease over time
  - Are the products being used correctly?
- **Cost**
  - NRT cost vs. cigarettes (and ongoing smoking- financial & health)

Varenicline (Champix)





Varenicline- Troubleshooting

- **Nausea**
  - Always take with food
  - Increase fluid intake, 10 glasses water /day if clinically appropriate
- **Insomnia – bring evening dose forward**
- **Renal impairment – reduced dose 1mg per day**
- **If not tolerating for any reason consider reduced dose**

Neuropsychiatric safety and efficacy of varenicline, bupropion, and nicotine patch in smokers with and without psychiatric disorders (EAGLES): a double-blind, randomised, placebo-controlled clinical trial

Robert M Anthenelli, Neal L Benowitz, Robert West, Lisa St Aubin, Thomas McRae, David Lawrence, John Ascher, Cristina Russ, Alok Krishen, A Eden Evins

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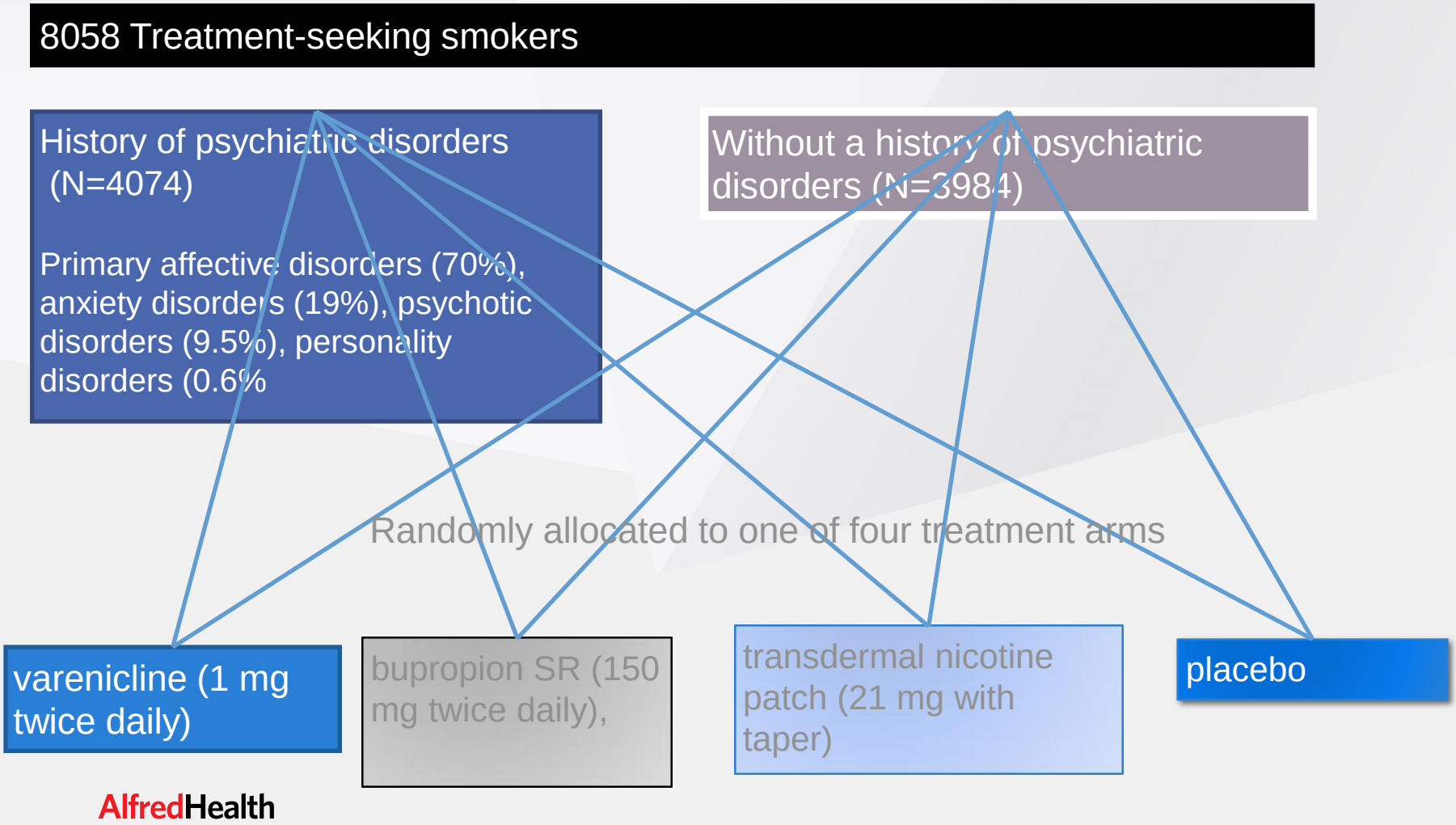
EAGLES Study



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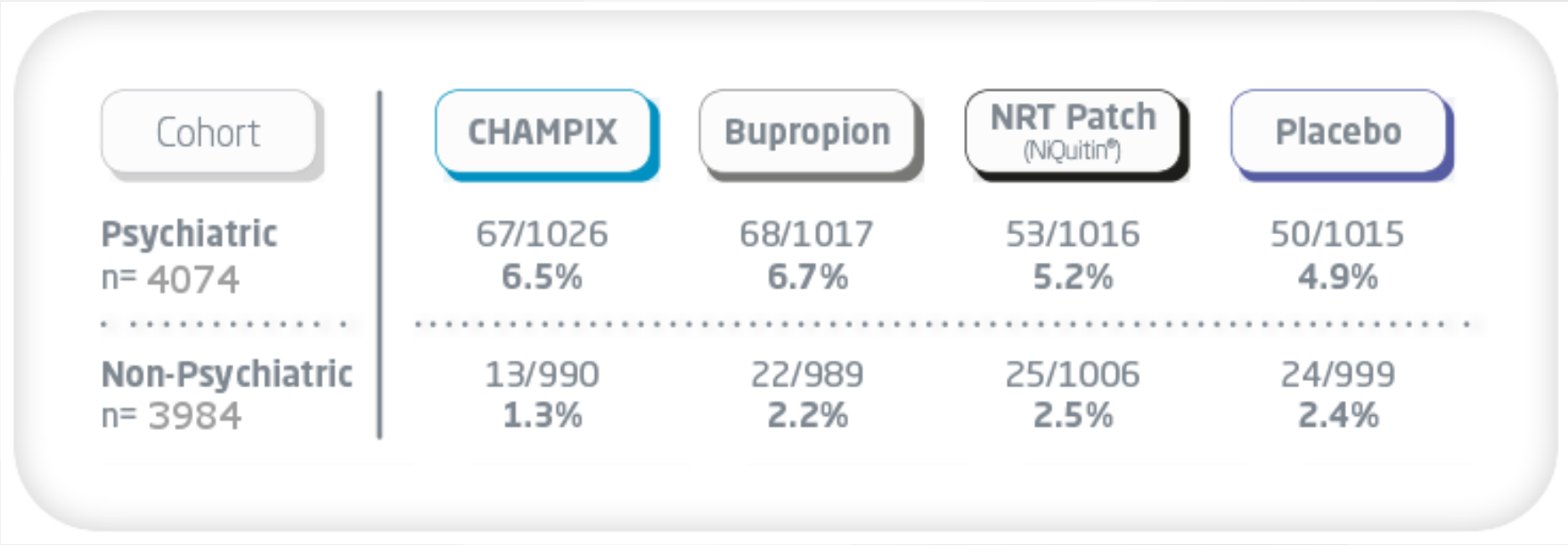
Anthenelli et al. 2016 Lancet 387 (10037): 2507-20



Cohort	CHAMPIX	Bupropion	NRT Patch (NiQuitin®)	Placebo
Psychiatric n= 4074	67/1026 **6.5%**	68/1017 **6.7%**	53/1016 **5.2%**	50/1015 **4.9%**
Non-Psychiatric n= 3984	13/990 **1.3%**	22/989 **2.2%**	25/1006 **2.5%**	24/999 **2.4%**

- **The rate of neuro-psychiatric adverse events (AEs) was similar (not significantly different) across the four treatment groups**
  (i.e. no indication that varenicline or bupropion are associated with these AEs anymore than nicotine patch or placebo)

- **More AEs in the psychiatric cohort compared with the non-psychiatric cohort**
  (i.e. people with mental illness were more likely to experience AEs, regardless of which medicine they were using)

Varenicline and cardiovascular safety

- **Meta-analysis (Prochaska JJ & Hilton JF, 2012) found no significant increased risk of CV events.**
- **Varenicline also safe and effective in smokers with stable CVD (Rigotti et al. 2010).**
- **EAGLES extension trial (CV safety) (Benowitz et al. 2018)**
  - No evidence that pharmacotherapy increases the risk of serious CVD or CV adverse events in general smokers
  - Excluded those with acute or unstable CVD

Drug Interactions

Many interactions identified; varying clinical significance

Chemicals in tobacco smoke can interact by two mechanisms

- *Pharmacokinetic*- usually poly-carbons not nicotine
  stimulation of hepatic enzymes
  antipsychotics (clozapine, olanzapine), warfarin & caffeine

- *Pharmacodynamic*- largely due to nicotine
  alter the expected response or actions of other drugs
  beta-blockers, insulin

Dose adjustments may be required and based on clinical presentation and according to medical review

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