

Effectiveness of a 'lung age' intervention on smoking cessation rate in a Singaporean community

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| Submission date 31/01/2015 | Recruitment status No longer recruiting | <input type="checkbox"/> Prospectively registered |
| | | <input type="checkbox"/> Protocol |
| Registration date 26/02/2015 | Overall study status Completed | <input type="checkbox"/> Statistical analysis plan |
| | | <input checked="" type="checkbox"/> Results |
| Last Edited 18/02/2022 | Condition category Mental and Behavioural Disorders | <input type="checkbox"/> Individual participant data |

Plain English summary of protocol

Background and study aims

There is a link between tobacco use and several preventable chronic diseases such as cardiovascular diseases, stroke, cancers (lung cancer) and respiratory diseases (chronic obstructive pulmonary disease and asthma). There have been many attempts to help people stop smoking but smoking rates are increasing worldwide, including in Singapore. The aim of this initial study is to assess whether a 'lung age' intervention (using a device called a MICROLAB MK8 ML3500 spirometer) can have an impact on smoking cessation rates, smoking abstinence and nicotine dependence among the smoking community in Singapore.

Who can participate?

Adults aged 35 and above and who are smokers.

What does the study involve?

Participants will be randomly allocated to one of two groups: participants in the experimental group will receive a 'lung age' intervention, consisting of lung age determination and education as well as smoking cessation advice, while the researchers will provide those in the control group with the usual smoking education.

What are the possible benefits and risks of participating?

Not provided at time of registration

Where is the study run from?

Khoo Teck Puat Hospital, Singapore

When is the study starting and how long is it expected to run for?

From September 2014 to September 2015

Who is funding the study?

Alexandra Health National Medical Research Centre (Singapore)

Who is the main contact?

Mr Imran Muhammad

Contact information

Type(s)

Scientific

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Additional identifiers

EudraCT/CTIS number

IRAS number

ClinicalTrials.gov number

Secondary identifying numbers

N/A

Study information

Scientific Title

A pilot randomised controlled trial on the effectiveness of a 'lung age' intervention on smoking cessation rate in a Singaporean community

Study objectives

Tobacco use has been linked to several preventable chronic diseases, such as cardiovascular diseases, stroke, cancers including lung cancer and respiratory diseases such as Chronic Obstructive Pulmonary Disease (COPD) and Asthma. Despite numerous health education attempts to promote smoking cessation, there has been a sustained increase in smoking rates worldwide, including in Singapore. More studies are required to validate the effectiveness of using a lung age intervention as a smoking cessation tool, especially in an Asian society such as Singapore.

When compared with the control group, participants in the experimental group will report significantly higher smoking cessation rates, stronger abstinence towards smoking, lower nicotine dependence and advancement in the stage of behavioural change.

Ethics approval required

Old ethics approval format

Ethics approval(s)

Singapore National Health Group Domain Specific Review Board (DSRB) - Domain F NHG DSRB, 04/09/2014, ref: 2014/00711

Study design

Pilot randomised controlled trial

Primary study design

Interventional

Secondary study design

Randomised controlled trial

Study setting(s)

Community

Study type(s)

Prevention

Participant information sheet

N/A

Health condition(s) or problem(s) studied

Smoking cessation

Interventions

A convenience sample of 108 participants will be recruited from population health screenings conducted by a tertiary public hospital in Singapore with 54 participants in the experimental group and 54 in the control group. Participants in the experimental group will receive a Lung age intervention, consisting of lung age determination and education as well as smoking cessation advice, while the researchers will provide those in the control group with the usual smoking education.

Intervention Type

Device

Primary outcome measure

1. To explore the feasibility of applying the “lung age” intervention among the smoking community in Singapore.
2. To evaluate the effectiveness of the “lung age” intervention on smoking cessation rates, smoking abstinence self-efficacy and nicotine dependence and among this group of population. Data will be collected at the baseline and again at the third and sixth month follow-ups. Data will be analysed using IBM SPSS 22.

Secondary outcome measures

No secondary outcome measures

Overall study start date

04/09/2014

Completion date

03/09/2015

Eligibility

Key inclusion criteria

1. Currently smoking
2. Aged 35 years old and above
3. Able to read and/or speak in English and/or Mandarin

Participant type(s)

Patient

Age group

Adult

Sex

Both

Target number of participants

54 participants in Intervention group, 54 participants in control group

Key exclusion criteria

1. Have a known history of major psychiatric illness
2. History of Respiratory related diseases: COPD, asthma, bronchioectasis
3. Ejection fraction <40 %, or diagnosed with congestive cardiac failure
4. Diagnosed with acute myocardial infarction within 1 month
5. Diagnosed with fluid overload / acute pulmonary oedema
6. Receiving oxygen therapy
- 7, Recent eye/thoracic/abdominal surgery
8. Chest/abdominal/oral and facial pain
9. Hyperventilation syndrome

Date of first enrolment

01/11/2014

Date of final enrolment

30/03/2015

Locations

Countries of recruitment

Singapore

Study participating centre

Khoo Teck Puat Hospital

90 Yishun Central

Singapore

Singapore

Singapore 768828

Sponsor information

Organisation

Alexandra Health National Medical Research Centre - Centre Grant Pitch For Fund 2014

Sponsor details

Khoo Teck Puat Hospital

90 Yishun Central

Singapore

Singapore

768828

Sponsor type

Hospital/treatment centre

Funder(s)

Funder type

Research council

Funder Name

Alexandra Health NMRC Centre Grant Pitch For Fund 2014

Results and Publications

Publication and dissemination plan

We aim to publish our Research Protocol by end of March 2015 (Target Journal: Journal of Advanced Nursing). We aim to publish the final study findings in October 2015. Study findings shall also be relayed to hospital healthcare providers (Khoo Teck Puat Hospital) and community partners that have helped us recruit participants.

Intention to publish date

31/12/2015

Individual participant data (IPD) sharing plan

Not provided at time of registration

IPD sharing plan summary

Available on request

Study outputs

| Output type | Details | Date created | Date added | Peer reviewed? | Patient-facing? |
|---------------------------------|---------|--------------|------------|----------------|-----------------|
| Results article | | 21/05/2015 | 18/02/2022 | Yes | No |