“The future of treatment of tobacco dependence – harnessing the technology to deliver hybrid interventions”

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University College London

@AHerbec  |  #CalisiaConf2019  |  a.herbec@ucl.ac.uk
1: Quitting smoking is the most effective intervention

Quitting smoking increases life expectancy

1 year of not smoking => 3 months longer life expectancy

Quitting smoking extends the lifespan
- by 3 years if one quits by the age of 60
- by 6 years if one quits by the age of 50
- by 9 years if one quits by the age of 40

1: Quitting smoking is the most effective intervention

<table>
<thead>
<tr>
<th>Smoking prevention &amp; improves outcomes for the entire family</th>
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<tbody>
<tr>
<td><strong>Cardiovascular Diseases and Stroke</strong></td>
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<td><strong>Primary and secondary cancers</strong></td>
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<td><strong>COPD and asthma</strong></td>
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<td><strong>Fertility and impotence</strong></td>
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2: We have effective and safe gold standard treatments for smoking

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West et al, 2017, Addiction
2: We have effective and safe gold standard treatments for smoking

### Pharmacotherapy

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Combine for the best effect

West et al, 2017, Addiction
3: Smokers are trying to quitting smoking

70% of smokers want to quit smoking

Around 40% try to quit smoking every year
4: Smokers are most often **failing to quit smoking**

Around 95% do not use any support when quitting ('strong will', or cold turkey)
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Around 95% do not use any support when quitting (‘strong will’, or cold turkey)

Most smokers return to smoking within 2 weeks.

Only 5% will succeed.
5: Smokers are interested in pharmacotherapy

1 million stop smoking treatments sold in Poland. Majority are cytisine-based (effective and safe, available over-the-counter).

Number of cessation treatments sold in Poland (2000-2015)

- DESMOXAN
- TABEX
- ZYBAN
- CHAMPIX
- NICORETTE
- NIQUITIN

Smokers are interested in pharmacotherapy
5: Smokers are interested in pharmacotherapy

1 million stop smoking treatments sold in Poland. Majority are cytisine-based (effective and safe, available over-the-counter).

However, still 8 mln smokers:
1) <5% smokers report using them to quit in surveys
2) buying over-the-counter medications is not enough to quit:
   - well documented non-adherence
   - lack of psycho-behavioural support.
Priorities for healthy cities (and countries):

1. Increase the number of smokers who make a quit attempt

2. Increase access to and use of evidence-based cessation support

3. Improve adherence to pharmacotherapy

4. Support smokers to remain abstinent for at least 4 weeks (ideally 6 months) to increase long-term quit rates
Solutions?
Brief advice (3As) – a highly cost-effective treatment

1: Ask (Zapytaj)
Identify smoking

2: Advice (Poradź)
Advise all smokers to quit smoking

3: Assist (Pomóż)
Pharmacotherapy for 8-12 weeks
Psycho-behavioural support (4-8 weeks)

Follow-up

Aleksandra Herbeć, Fundacja Promocja Zdrowia
aaherbec@gmail.com
Brief advice (3As) – a highly cost-effective treatment

1: Ask (Zapytaj)
Identify smoking

2: Advice (Poradź)
Advise all smokers to quit smoking
Not offered routinely
Limited: training, time, resources

3: Assist (Pomóż)
Pharmacotherapy for 8-12 weeks
Psycho-behavioural support (4-8 weeks)
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Brief advice (3As) – a highly cost-effective treatment

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2: Advice (Poradź)
Advise *all* smokers to quit smoking

3: Assist (Pomóż)
Pharmacotherapy for 8-12 weeks
Psycho-behavioural support (4-8 weeks)

Major challenges in Poland and many other countries

Not offered routinely

Follow-up
Hybrid Interventions – the future of smoking cessation

1: Ask (Zapytaj)
Identify smoking

2: Advice (Poradź)
Advise all smokers to quit smoking

3: Assist (Pomóż)
Pharmacotherapy for 8-12 weeks
Digital support and hybrid interventions
Opportunity in context with limited resources

Follow-up

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### Developing Digital Stop smoking Support

#### TOP-DOWN
Theory + Components of effective traditional face-to-face treatments

Adaptation into 4-8 week programmes

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Cost-effective if used by many smokers

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Technology- and data-driven components

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### New interventions awaiting evaluation

- Dynamically tailored Just-in-time interventions
- Artificial Intelligence and chat-bots
- Geo-sensing
- Digital devices that detect smoking and vitals (e.g. HR and carbon monoxide monitors)

Cost-effective if used by many smokers

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Cost-effective if used by many smokers

Integration as part of the healthcare system => greater use

- Geo-sensing
- Digital devices that detect smoking and vitals (e.g. HR and carbon monoxide monitors)

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A new hybrid platform to support clinicians and patients in the treatment of tobacco dependence

Smoking Treatment Advisory Resource

STAR - Twój Asystent Rzucenia Palenia

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STAR for Clinicians
Novel Hybrid Platform **STAR**

- **eLearning** → **Certificates**
- **Knowledge base**
- **STAR For Clinicians**
  - **Patient eRecord**
  - **Treatment plan**
  - **Personalised support**
- **Continuation of personalised support after clinical visit**
- **Monitoring**

**For Clinicians**

**For Patients**

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STAR - Platform and research programme 2019

Basis for STAR
Evidence-based + best clinical practice

Consultations and interviews
Clinicians
Patients

Evaluation (2019)
Pilot implementation and evaluation

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Kalisz city and the region – new programmes

1. Healthcare professionals to gain skills to support smokers

2. Every patient who smokes should be offered very brief advice and pharmacotherapy

3. Patients should be directed to additional support:
   - face-to-face support
   - STAR or other digital programmes
Thank you!

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