Overdose Risk Information Project (ORION):
Main findings and implications for prevention policies in Europe

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Preventive measures for reducing opioid Overdoses in Europe

• No tests of clinical based interventions
• No tests of use of new technology
• No developed model of intervention
Aims of ORION:

1. **Develop** an e-health overdose risk assessment tool
   - Estimate overdose risk
   - Inform healthcare professionals of patient’s sense of risk
   - Raise awareness and understanding in patients

2. **Pilot implementation** of this e-health tool in different clinical settings
   - Can it be used in different clinical settings?
   - Do the patients benefit?
Phase 1: Risk Factors

- Literature search for the included risk factors, identifying odds ratios for overdose deaths

**Demographics**
- age
- gender

**Protective Factors**
- receiving treatment
- reducing drug intake

**Risk Factors**
- injecting
- mixing drugs
- recent prison release
- using drugs alone
- previous overdose
- mental health
- life event
Phase 1: Software

• Expert consultation to decide exact wording for the software:

• Pilot revealed no apparent problems
  – 8-10 substance misusers per country

• Development of the software (tender)
  – Statistical modelling and software programming
Welcome

Welcome to the Overdose Risk Information Project (ORION).

This program is about your risk of experiencing a drug overdose.

Please complete this program with your healthcare provider.

The program will ask you several questions about your drug taking and life circumstances. You can discuss these topics with your healthcare provider as you complete the program together. There are nine questions in total.

Based on your answers, the program will then give you an estimate of your personal risk for experiencing a drug overdose. **It is important to remember that this is only an estimate and no one can guarantee that you will or will not experience a drug overdose.**

You will be given the opportunity to revisit the questions and change your answers. This may help you understand how changes in your behaviour might influence your drug overdose risk.

If you wish, we can give you a printout with information about your drug overdose risk.
Participant Information

For the healthcare provider - please enter the following information into the fields provided:

Participant Study ID: ________________________________
Site: ____________________________________________
Initials of the Health Care Provider/Researcher: _______

Participant Age: __________ years old

Participant Gender: ________________________________

[Begin Questions]
### Risk Assessment Questions

For the patient and the healthcare provider:

The following questions are about your drug-taking behaviours, like events and circumstances **over the past 30 days**.

<table>
<thead>
<tr>
<th>Question</th>
<th>Option</th>
</tr>
</thead>
<tbody>
<tr>
<td>Did you inject drugs?</td>
<td>Yes</td>
</tr>
<tr>
<td>Were there any days when you have taken more than one drug (including alcohol)?</td>
<td>Yes</td>
</tr>
<tr>
<td>Have you recently been released from prison or residential rehab?</td>
<td>No</td>
</tr>
<tr>
<td>Are you receiving some form of treatment for taking drugs (including alcohol)?</td>
<td></td>
</tr>
<tr>
<td>Have you used drugs (including alcohol) when you were alone?</td>
<td></td>
</tr>
<tr>
<td>Have you tried to reduce your use of drugs (including alcohol)?</td>
<td></td>
</tr>
<tr>
<td>Have you had a stressful life event (e.g. bereavement, relationship breakup, health problem)?</td>
<td></td>
</tr>
<tr>
<td>Are you suffering from a psychological condition (e.g. depression or anxiety)?</td>
<td></td>
</tr>
<tr>
<td>Have you ever been so intoxicated that you were scared of dying?</td>
<td></td>
</tr>
</tbody>
</table>

[Display Risk >]
Compared to a non-drug user, your risk of overdose is shown below. The risk is based on what you say about yourself from your answers to the questions.
Did you inject drugs? YES
Please be aware that individuals who inject drugs are often at higher risk of suffering a drug overdose than those who do not inject.
In order to reduce your risk of suffering an overdose you should reduce or stop injecting drugs.

Were there days when you have taken more than one drug (including alcohol)? YES
Please be aware that individuals who take more than one drug in a day are often at higher risk of suffering a drug overdose than those who take a single drug.
This is because certain drugs combine to affect your body. In order to reduce your risk of experiencing a drug overdose you should reduce the number of drugs you take in any given day.

Have you recently been released from prison or residential rehab? NO
Individuals who are not in prison are often at lower risk of experiencing a drug overdose than those who have recently been released from prison.

Are you receiving some form of treatment for taking drugs (including alcohol)? YES
Individuals who are receiving treatment for their drug and alcohol problems are often at lower risk of experiencing a drug overdose than those who are not in treatment.

Have you used drugs (including alcohol) when you were alone? YES
Please be aware that individuals who take drugs when they are alone are often at higher risk of experiencing a drug overdose than those who take drugs in the company of others.
Risk Feedback

Modify Your Risk?

You now have the opportunity to revisit the questions and your answers. You can change your answers to see how this would affect your drug overdose risk.

Would you like to do this?

Yes  No
Modify Your Risk

Did you inject drugs?

Were there any days when you have taken more than one drug (including alcohol)?

Have you recently been released from prison or residential rehab?

Are you receiving some form of treatment for taking drugs (including alcohol)?

Have you used drugs (including alcohol) when you were alone?

Have you tried to reduce your use of drugs (including alcohol)?

Have you had a stressful life event (e.g. bereavement, relationship breakup, health problem)?

Are you suffering from a psychological condition (e.g. depression or anxiety)?

Have you ever been so intoxicated that you were scared of dying?

Finish >

Lower Risk

Compared to a non-drug user, your risk of overdose is shown below. The risk is based on what you say about yourself from your answers to the questions.

Higher Risk

You (modified risk)

You (previous risk)

Non-user

%
Evaluation

Please answer the following three questions about your experience of using this Overdose Risk Assessment Program:

Did you learn anything about drug overdose risk from this program?
- I learned nothing
- I learned a little
- I learned a lot

Is your drug and/or alcohol taking behaviour likely to change as a result of this information?
- Not at all
- Perhaps a little
- Yes, it will change a lot

Did you find the program useful?
- Not at all useful
- Somewhat useful
- Very useful

Finish >
Thank you for your time and for completing the ORION program. If you have any questions, you can talk to your healthcare provider or a researcher about them.

A copy of your risk estimate will be kept in your file for you to revisit at a later appointment if you wish.
Phase 2: Implementation

• Aim: to use **ORION** software with 40 cases per country
  – Age 18-55
  – Not psychotic or severely learning disabled

• Aim to use the **ORION** software in at least four different settings:
  – Outpatient / maintenance patients
  – Inpatient
  – Safe Injecting Rooms (Germany)
  – Mobile Unit (Italy)
Design

Pre  |  E-health tool  |  Post
---   |                | ---
Q1    |                | Q2
Phase 2: Evaluation Methods

• Pre-post software use Questionnaires:
  • General Self-Efficacy Scale (GSE) (Schwarzer & Jerusalem, 1995)
  • Overdose Risk Awareness Questionnaire

• Post software evaluation questions (Edwards et al., 1999):
  • Cognitive Outcomes (learned something?)
  • Behavioural Outcomes (intend to change behaviour?)
  • Affective Outcomes (Useful? Like to use?)
Early Results

Engaging with the ORION software:

- 50% of participants made changes
- 2.4 risk factors were changed on average
- Average time spent on changing risk factors: 32 seconds
It was interesting, a new thing, brief and not boring. I have learnt something
52% learnt something about drug overdose;

48% will consider changing drug use;

83% thought it was fairly or very useful
Younger users more likely to consider changing behaviour

Make more efforts with e-health tool
Next steps

- Analysis & write-up
- EU Parliament Roundtable

**ORION2**
- Behaviour change
- Follow-up contact
- RCT design
- Clinician training package
Thank you!

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