



EFAR-FVG: Effectiveness of primary care based facilitated access to alcohol reduction website – a randomised controlled non-inferiority trial in Region Friuli Venezia Giulia, IT



Journal:	<i>BMJ Open</i>
Manuscript ID:	bmjopen-2012-002304
Article Type:	Protocol
Date Submitted by the Author:	06-Nov-2012
Complete List of Authors:	Struzzo, Pierluigi; Regional Centre for the Training in Primary Care, Region Friuli-Venezia Giulia Scafato, Emanuele; WHO Collaborating Centre for Research and Health Promotion on Alcohol and Alcohol-Related Health Problems, Osservatorio Nazionale Alcol, Centro Nazionale di Epidemiologia, Sorveglianza e Promozione della Salute, Istituto Superiore della Sanità Mc Gregor, Richard; Codeface Ltd, Della Vedova, Roberto; Regional Centre for the Training in Primary Care, Region Friuli-Venezia Giulia Verbano, Lisa; Regional Centre for the Training in Primary Care, Region Friuli-Venezia Giulia Lygidakis, Charilaos; Movimento Giotto, Tersar, Costanza; Regional Centre for the Training in Primary Care, Region Friuli-Venezia Giulia Crapesi, Lucia; Regional Centre for the Training in Primary Care, Region Friuli-Venezia Giulia Tubaro, Gianni; Regional Centre for the Training in Primary Care, Region Friuli-Venezia Giulia Freemantle, Nick; University College London, Dept Primary Care and Population Health Wallace, Paul; University of Leeds, National Institute of Health Research Clinical Research Networks
Primary Subject Heading:	General practice / Family practice
Secondary Subject Heading:	Addiction, Cardiovascular medicine, Evidence based practice, Public health, Health services research
Keywords:	Telemedicine < BIOTECHNOLOGY & BIOINFORMATICS, World Wide Web technology < BIOTECHNOLOGY & BIOINFORMATICS, HEALTH PROMOTION, Change management < HEALTH SERVICES ADMINISTRATION & MANAGEMENT, Health policy < HEALTH SERVICES ADMINISTRATION & MANAGEMENT, Risk management < HEALTH SERVICES ADMINISTRATION & MANAGEMENT

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28
29
30
31
32
33
34
35
36
37
38
39
40
41
42
43
44
45
46
47
48
49
50
51
52
53
54
55
56
57
58
59
60

SCHOLARONE™
Manuscripts

For peer review only

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28
29
30
31
32
33
34
35
36
37
38
39
40
41
42
43
44
45
46
47
48
49
50
51
52
53
54
55
56
57
58
59
60

Title

EFAR-FVG: Effectiveness of primary care based facilitated access to alcohol reduction website – a randomised controlled non-inferiority trial in Region Friuli Venezia Giulia, IT.

Pierluigi Struzzo¹, Emanuele Scafato², Richard McGregor³, Roberto Della Vedova¹, Lisa Verbano¹, Charilaos Lygidakis⁴, Costanza Tersar¹, Lucia Crapesi¹, Gianni Tubaro¹, Nick Freemantle⁵ and Paul Wallace⁶.

¹ Regional Centre for the Training in Primary Care, Region Friuli Venezia Giulia, Via Galvani, 1 Monfalcone, IT

² WHO Collaborating Centre for Research and Health Promotion on Alcohol and Alcohol-Related Health Problems, Osservatorio Nazionale Alcol, Centro Nazionale di Epidemiologia, Sorveglianza e Promozione della Salute, Istituto Superiore di Sanità, Rome, IT

³ Codeface Ltd. 4 Namrik Mews, Hove BN3 2TF, UK

⁴ Movimento Giotto, Bologna, IT

⁵ Dept Primary Care and Population Health, University College London. UK

⁶ National Institute of Health Research Clinical Research Networks, University of Leeds, UK

Corresponding author: Pierluigi Struzzo, Via Zara, 21 33100 Udine, IT pierluigi.struzzo@uniud.it
Tel. 0039 0432 299136; Fax 0039 0481 487578 Mobile 0039 3356138380

Authors' contributions

PS and PW are the principal investigators, designed the study and drafted the article
ES, RM, HL, RD, LV, CT; have made substantial contributions to conception and design of the project
NF has been involved in drafting the manuscript or revising it critically for important intellectual content;
LC and GT: have given final approval of the version to be published

Key word: alcohol, risky drinking, Internet, primary care, brief intervention.

Word count: 3051

Abstract

Introduction

Facilitated access to an alcohol reduction website could offer primary care professionals an attractive and time-saving alternative to face to face intervention, but there is currently limited evidence about its effectiveness.

Objectives

To test the effectiveness in primary care of facilitated access care to an alcohol reduction website for risky drinkers compared to face-to-face brief intervention.

Methods

Randomised controlled non-inferiority trial for risky drinkers comparing facilitated access to a dedicated website with face to face brief intervention in general practices. Patients screening positive will be randomised to face to face intervention or facilitated access. The trial will be conducted in 3 phases: set-up (website development, beta testing and GP training), pilot study and main trial.

Ethics: The protocol was approved by the ethical committee on march 2012.

Trial registration: www.Clinicaltrials.gov: NCT01638338

1
2
3 Article Summary –
4

5 Article focus
6

- 7
- 8 • Is Web-site facilitated acces to alcohol Brief Intervention as good as face to face BI?
- 9
- 10 • Is primary care the right setting to promote internet?
- 11

12 Key messages
13

- 14 • Risky drinking is an iportant health issue
- 15
- 16 • General practices are too busy to provide BI on alcohol
- 17
- 18

19 Strenghts and limitations
20

- 21 • A new wide spread tool is proposed to reduce risky drinking
- 22
- 23 • If not effective, this study promotes BI among GPs
- 24
- 25 • The domestic use of computers is not widespread in Italy and community involvement
- 26
- 27
- 28
- 29 might be important
- 30
- 31
- 32

33 **Background**
34

35
36 Hazardous alcohol consumption is a significant public health problem, with an estimated 3.8% of
37
38 all global deaths and 4.6% of global disability-adjusted life years lost attributable to alcohol.[1]

39
40 The European Union (EU) is the heaviest drinking region of the world, drinking an average of 11
41
42 litres of pure alcohol per adult each year.[2] In Region Friuli Venezia Giulia risky alcohol
43
44 consumption varies between the 23,2 and the 37,4% of the general population, being more
45
46 significant in young adults (18-24 yrs./old).[3-6] There is strong evidence that screening and
47
48 brief interventions (SBIs) are effective in reducing both alcohol consumption and the harms
49
50 associated with hazardous drinking.[7] However, in primary care, less than 10% of hazardous
51
52 and harmful drinkers are identified and less than 5% of those who could benefit are offered
53
54 brief interventions.[8] One of the principal reasons for this is that conventional delivery of brief
55
56
57
58
59
60

1
2
3 intervention can add up to 15 minutes to the primary consultation. In Italy, research on the
4 topic of SBI in general practice is scarce and although there is some evidence about GPs'
5 knowledge and attitudes,[9] no evidence exists on the extent to which SBI's are currently
6 implemented.
7

8
9
10
11
12 The provision of facilitated access to an alcohol reduction website could significantly increase
13 brief intervention rates by offering primary care professionals an attractive time-saving
14 alternative to face to face intervention. A review of trials of computer based interventions in
15 college drinkers found them to be more effective than no treatment and as effective as
16 alternative treatment approaches. The recent online trial of Down Your Drink (DYD -
17 <http://www.downyourdrink.org.uk/>) indicated potentially significant reductions in alcohol
18 consumption and risky drinking behaviours in subjects who used the trial websites,[10] and a
19 number of initiatives are underway to test the acceptability of this approach.[11] The EU-funded
20 ODHIN trial currently underway in 5 European countries is designed to determine the impact of
21 facilitated access on levels of implementation of brief interventions by primary care
22 practitioners. The DYD website has also been deployed in two NHS Primary Care Trust settings
23 in London, including automated baseline assessment of alcohol consumption and alcohol
24 related problems together with facilitated access by primary care professionals. The initial
25 findings suggested that facilitated access is both feasible and attractive in these primary care
26 settings, but as yet there is no published evidence about effectiveness.
27
28
29
30
31
32
33
34
35
36
37
38
39
40
41
42
43
44
45
46

47 The EFAR-FVG trial will seek evidence of equivalence in patient outcomes of facilitated access to
48 an alcohol reduction website compared with conventional face to face brief intervention, and
49 will additionally provide data about cost effectiveness. The trial will be implemented in the
50 Region Friuli Venezia Giulia, Italy and will test the hypothesis that brief intervention for risky
51
52
53
54
55
56
57
58
59
60

1
2
3 drinkers delivered in primary care through facilitated access to an alcohol reduction website will
4
5 reduce hazardous drinking as much or more than to face to face brief intervention by GPs
6
7
8
9

10 **METHODS/DESIGN**

11
12 1: Trial design: With the exception of the face-to-face intervention, all elements of the trial from
13
14 recruitment to follow-up be conducted online using a tried and tested methodology employed
15
16 by the UK-based research team in a large-scale online trial of the website
17
18 www.downyourdrink.org.uk. The intervention condition will consist of online GP-facilitated
19
20 access to an internet based brief intervention for risky dinking (see below). The comparison
21
22 condition will consist of face to face brief intervention performed by general practitioners. A
23
24 health economic evaluation will be undertaken in order to enable the calculation of cost
25
26 effectiveness.
27
28
29

30
31 2: Setting and practice eligibility: The trial will be run in general practices in the Region of Friuli
32
33 Venezia Giulia. A sample of practices will be invited by email and letter to participate in the
34
35 study. Practices expressing an interest in the trial and a willingness to actively distribute a
36
37 website brochure will be considered for inclusion in the study. Preference will be given to
38
39 respondents with at least 1000 registered patients and a practice nurse and/or receptionist.
40
41 Those selected for the trial will be required to undergo training (see page 13: Practice Training).
42
43 Payments will be made to practices as appropriate to incentivise the distribution of trial
44
45 brochures, the delivery of face-to-face intervention and the active follow-up of non-responders.
46
47 In the municipalities of the participating practices, contact will be made with the local
48
49 authorities to explore the possibility to utilize libraries or social centre as internet access sites
50
51 for patients who do not have such facilities at home or at work. Information will also be given to
52
53 the public with local newsletters or conferences.
54
55
56
57
58
59
60

1
2
3
4 3: Patient eligibility: All patients aged 16 or over who attend the participating practices during
5
6 the study period will be eligible to receive a trial brochure. Over 80s, people suffering from
7
8 severe psychiatric disorder, vision impaired, terminally ill or immigrants with poor command of
9
10 the Italian language will be excluded from the study.
11

12 4: Screening:

13
14 *A: Distribution of the website brochure:* For the duration of the trial, a nominated GP or another
15
16 staff member in each participating practice will distribute website brochures to all eligible
17
18 patients. These will describe the website, set out the URL, and invite the patient to login for an
19
20 alcohol screening test using the unique login number printed on their brochure. The number will
21
22 comprise the practice identifier (first 3 digits) and a randomly generated patient identifier (last 4
23
24 digits); only patients using these numbers will be eligible for the trial (See Appendix). The GP or
25
26 other staff member will offer all eligible patients a website brochure, accompanied by strong
27
28 verbal encouragement to login. Patients will also be asked whether they have adequate access
29
30 to online facilities at home and/or at work, and information will be given as appropriate about
31
32 additional internet access facilities in their locality. Accurate records will be kept matching each
33
34 patient's unique login number to their practice patient identifier; these records will be kept
35
36 highly secure in compliance with practice policies and the relevant EU regulations. Patients who
37
38 decide not make use of the facility will be invited to inform their GP of their decision by
39
40 completing and returning a simple tear-off section on the brochure.
41
42
43
44
45

46
47 *B: The online screening module:* Following login to the EFAR FVG DYD website, patients will be
48
49 invited to access the interactive part of the site containing the screening module for risky
50
51 drinking. This comprises the 3-question short Alcohol Use Disorders Identification Test AUDIT-C ,
52
53 the Italian version of which has been validated,[12] and a brief online consent form asking for
54
55 agreement to the result of the screening test to be sent to the GP practice and recorded in the
56
57
58
59
60

1
2
3 electronic health care record. For the purposes of the trial, AUDIT-C score cut points of 4 for
4 women and 5 for men will be adopted for case definition. Patients screening negative will
5 receive a standard message from their GP advising that that their responses indicate that their
6 stated drinking patterns fall within the guidelines for sensible drinking; they will receive no
7 further request to provide information. Those scoring positive will receive a personalised
8 message from their GP advising that their stated drinking patterns indicate that they are at risk
9 from their drinking and inviting them to take part in the EFAR FVG study (see Appendix: EFAR
10 FVG DYD website).

11
12
13
14
15
16
17
18
19
20
21 5: Consent: Those screening positive for risky drinking on the AUDIT-C and confirming that they
22 do not suffer from severe psychiatric disorder or a terminal illness will be invited to complete an
23 online consent module, providing information about the trial and what will be requested of
24 them as participants. Those providing consent will be invited to complete the baseline
25 assessment.

26
27
28
29
30
31
32
33 6: Baseline assessment: Patients providing consent will be asked to complete a set of baseline
34 assessment questionnaires including the following:

- 35
36
37
38 1) The 10 question Alcohol Use Disorders Identification Test (AUDIT)[13] validated Italian
39 version
- 40
41
42 2) The EQ-5D[14] quality of life questionnaire, validated Italian version

43
44
45 7: Randomization: Those completing the baseline questionnaires will undergo automated online
46 randomization into two arms:

47
48
49 *A: Intervention group: Facilitated access to the alcohol reduction website:* Those in the
50 intervention group will be taken to the introductory page containing a personalised online
51 message from their GP with tailored feedback about their responses to the alcohol
52 questionnaires and personalised encouragement to proceed to access the online brief
53
54
55
56
57
58
59
60

1
2
3 intervention package (see Appendix: EFAR FVG DYD website). Patients will encouraged to spend
4
5 at least 15 minutes on the site in the first instance, and will receive an email 1 week later
6
7 encouraging them to login again. They will be asked to review their alcohol consumption and
8
9 encouraged to discuss their website experience when they next see their GP.
10
11

12 *B: Comparison group: ace to face brief intervention by the GP:*

13
14 Patients allocated to the comparison group will be invited to check a box online which will
15
16 automatically generate an email to their practice requesting a GP appointment for a face to face
17
18 brief intervention within the next 7-10 days. At the appointment, the patient will receive an
19
20 intervention be based on the brief motivational interview:[15]
21
22

- 23 1. **Assessment of the motivation to change the risky behaviour**
- 24 2. **Assessment of the Stage of Change**
- 25 3. **Advice - explicit advice on changing drinking behaviour**
- 26 4. **Empathy - role of counsellor important**
- 27 5. **Capacity building - instilling optimism that goals achievable**
- 28
- 29
- 30
- 31
- 32
- 33
- 34

35 Non attenders will be offered up to 3 additional appointments in order to optimise intervention
36
37 rates.
38

39
40 8: Follow up: Follow up will take place at 1m and 3m after randomisation in the pilot phase, and
41
42 at 3m, 6m and 12m in the main trial. The assessment will consist of the following:
43

- 44 1) The 10 question Alcohol Use Disorders Identification Test (AUDIT) validated Italian
45
46 version
47
- 48 2) The EQ-5D quality of life questionnaire, validated Italian version
49
50

51 Every effort will be made to secure the highest possible response rates. In the first instance,
52
53 each patient in the trial will receive an automated email requesting them to login and complete
54
55 the assessment questionnaires. Failure to do so will result in further emails at 1 week and 2
56
57
58
59
60

1
2
3 week intervals. Persistent failure will be notified to the patient's GP who will contact them by
4
5 letter, phone or in person in order to ensure that their assessment is completed.
6
7

8
9
10 9: Data management and security: Data files generated by the online packages in each of the
11
12 trial settings will be stored securely on servers according to privacy. The only identifiers will be
13
14 the unique login number. The files generated by the practices linking the unique login numbers
15
16 to the patient identifiers will be will be stored securely along with other clinical data in the
17
18 practice. Regular checks of the quality of the data will be carried out under the supervision of
19
20 the research team.
21
22

23
24 10: Practice training: Staff in the participating practices will be required to undertake at least
25
26 one training session in which they will be presented with information about the design of the
27
28 trial, the website brochure and the EFAR FVG DYD website. The GPs will be presented with the
29
30 options relating to tailoring of the personalised multi-media online message, and will be given
31
32 training in the use of face to face brief intervention (see Appendix). All participating GPs will be
33
34 required to familiarise themselves with the website and to satisfy appropriate standards for the
35
36 delivery of brief intervention.
37
38

39
40 11: Statistical analysis: The principal outcome measure will be the proportion of risky drinkers as
41
42 classified by responses to the AUDIT-10 question scale at 3 months following randomisation.
43
44 In order to assess non-inferiority of facilitated access compared with face-to-face brief
45
46 intervention, the proportions of risky drinkers in each group will be computed. Facilitated access
47
48 will be deemed not inferior to face-to-face treatment at a one sided alpha of 2.5 % if the
49
50 difference between the proportions of risky drinkers in the facilitated access group and the face-
51
52 to-face brief intervention group is below a specified margin of non-inferiority of 10%. Assuming
53
54 a reduction of 30% in the proportion of risky drinkers in the face-to-face intervention group and
55
56
57
58
59
60

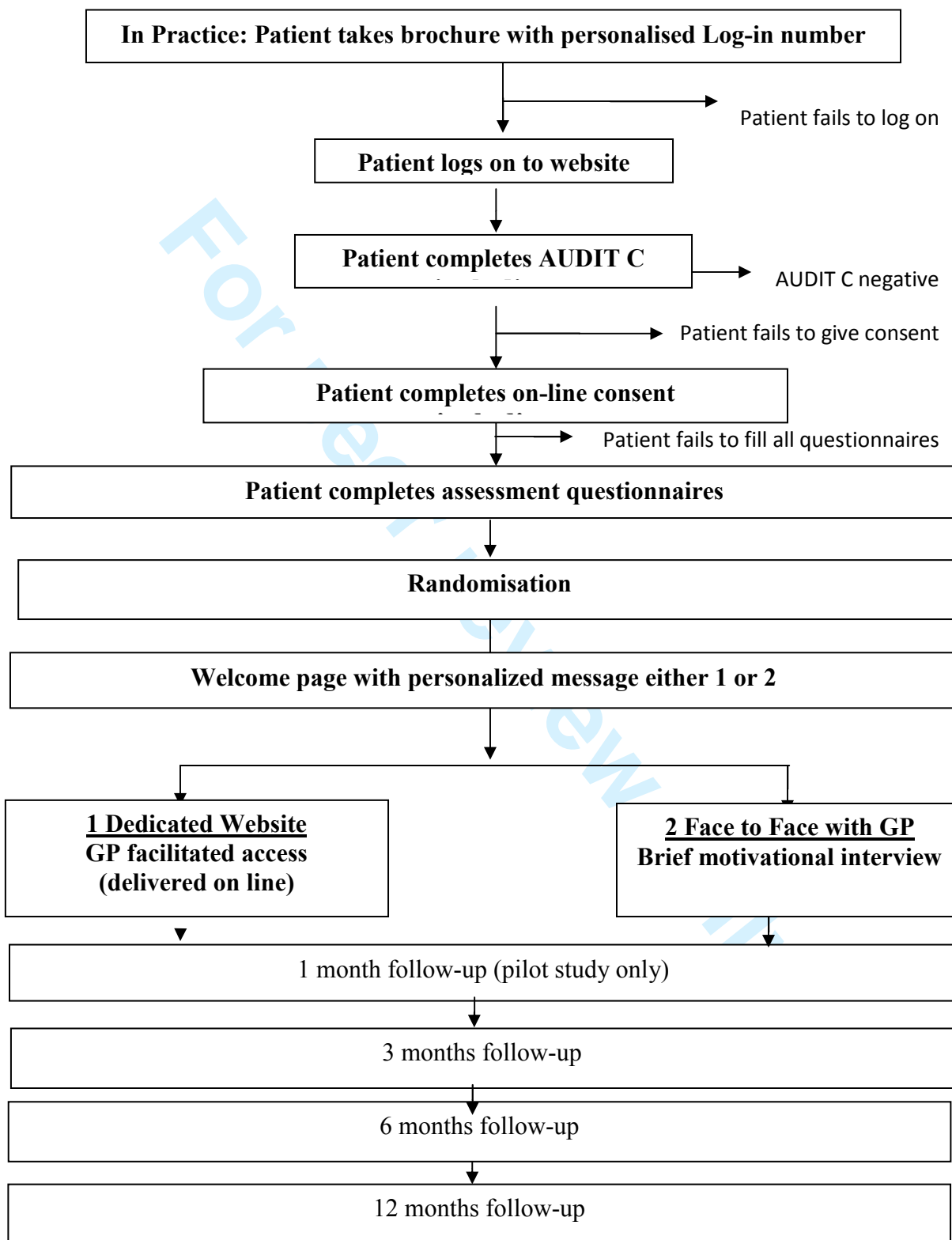
1
2
3 allowing for overall attrition of 10% of patients in the trial, it is calculated that 500 patients will
4
5 be required in each group to give the trial 90% power (1-beta) to reject the null hypothesis that
6
7 facilitated access is inferior to face-to face intervention.
8
9

10 11: Health economics:
11

12 Analysis will be performed to determine the cost-effectiveness of patients receiving online
13
14 intervention compared to conventional face-to-face brief intervention by the GPs. Cost-effectiveness
15
16 will be calculated as cost per quality adjusted life year (QALY) gained using the EQ-5D. Health care
17
18 costs will include the costs of screening, GP contact including face-to-face brief intervention, staff
19
20 training, website upkeep and, where possible, alcohol-related health care contacts.
21
22

23 12: Ethical approval, research governance and data access. Ethical approval will be sought in as
24
25 appropriate.
26
27
28
29
30
31
32
33
34
35
36
37
38
39
40
41
42
43
44
45
46
47
48
49
50
51
52
53
54
55
56
57
58
59
60

Figure 1: EFAR FRIULI: PATIENT FLOW CHART



Appendix 1:

Development and implementation of the EFAR-FVG DownYourDrink (EFAR FVG DYD) website

General: The EFAR-FVG DownYourDrink (EFAR FVG DYD) website: EFAR FVG DYD is an Italian language on-line facility, which includes the screening, consent, assessment, randomisation and follow-up modules necessary for the conduct of the trial, as well as the online intervention for the patients in the intervention group. The site has been developed from the www.DownYourDrink.org.uk (DYD) website developed for the DYD-RCT trial (Wallace et al 2011) and adapted for use in the context of the Region of Friuli Venezia Giulia (see “Appendix 1: Website development” below). Details of the DYD website and the psychological theory which has underpinned its development have been reported elsewhere (Linke et al, 2009). General access is available to the EFAR FVG DYD website through the Region Friuli VG official web site and other national web pages to be identified with the Istituto Superiore della Sanità in Rome. Entry to the trial is restricted to those who have been given a trial-specific log in number. The Regional portal offers general advice about different aspects of healthy lifestyle, and gives specific encouragement to the visitor to complete the AUDIT-C screening module for risky drinking (see “Screening” below). The website calculates the respondents’ AUDIT C scores. For respondents who screen negative, a message is generated advising that that their responses indicate that their stated drinking patterns fall within the guidelines for sensible drinking. The website routes respondents who score positive but do not have a trial-specific log in number directly to the alcohol reduction website, while those who have a trial-specific log on number are automatically provided with access to the EFAR FVG trial consent module, and subsequently to the on-line baseline assessment and thence to randomisation. The website also includes a facility to deliver a personalised multi-media (written/audio/video) message from the patient’s GP, identified by the respondent’s unique log-in number. The programme has a facility enabling

1
2
3 the message to be tailored to reflect each GP's preferences about the use of multimedia to
4 deliver their personalised message. It also automatically generates different messages
5 depending on the patient's randomisation status and produces periodic automatic messages to
6 respondents in the intervention group reminding them to re-visit the site. The website
7 generated feedback to each participating GP on their recruitment figures relative to the other
8 GP trialists. Finally, it generates automatic emails to elicit completion of the follow-up
9 questionnaires at the selected time intervals from the point of randomisation.

10
11
12 Website development: The first stage will be to adapt the UK-based DYD website for use as a GP
13 online facilitated internet-based brief intervention. DYD is an evidence-based intervention,
14 incorporating tailored feedback, cognitive behavioural therapy and motivational
15 interviewing.[16] It has been extensively evaluated, most recently through a large scale on-line
16 trial involving nearly 8000 subjects.[10] EFAR will be informed by developments that
17 underpinned the online trial of DYD, including on-line recruitment, consent, assessment,
18 randomisation, intervention and follow-up. Country-specific information such as recommended
19 guidelines for alcohol intake, definitions of standard drinks and alcohol-related laws will be
20 included. The screening and self assessment questionnaires will be incorporated for on-line
21 administration, as will standardised data management tools and content management systems.

22
23
24 Tailoring and online GP-facilitation: Possibility will be given to each participating practice to
25 create a tailored version of the website modified to reflect their organisational and personal
26 identity. A menu-driven facility will enable generation of a personalised GP welcome page,
27 incorporating one or more photographs and a written/recorded message from the GP. The
28 tailoring and online GP-facilitation facilities will be informed by the results of beta testing in the
29 EFAR study and the subsequent feasibility and pilot study which will involve 15 practices. GPs
30
31
32
33
34
35
36
37
38
39
40
41
42
43
44
45
46
47
48
49
50
51
52
53
54
55
56
57
58
59
60

1
2
3 with receptionist or nurse service will be chosen from a list of GP that expressed an interest on
4
5 research.
6

7
8 Beta testing: Beta testing is a critical phase of developing a successful website before it goes
9
10 live. It includes load testing, failure recovery, security, and platform and browser compatibility,
11
12 which will occur in each of the 15 practices, and respective patients. Participants will be asked to
13
14 give their online consent, work through the website and write down any feedback or
15
16 suggestions they have to improve the site in terms of functionality, and/or any problems they
17
18 encounter. Each participant will then partake in a short interview with a member of the research
19
20 team to relay their findings. All interviews and focus groups will occur in an open-ended fashion
21
22 and participants will be encouraged to provide comments, feedback and their recommended
23
24 changes for the website. Where possible, participants will be reimbursed for their time and
25
26 travel.
27
28

29
30
31 Training of the GPs: Identified GPs will be asked to attend a 7 hours training session. A
32
33 brainstorming on Brief Interventions together with a recorded role play will be the first two
34
35 hours of the training. During hour three and four the GPs will simulate face to face intervention
36
37 in a video recorded Role play that will be discussed and analysed during the plenary session. The
38
39 website prototype will be presented and discussed in detail, during hours five and six. The last
40
41 hour of the meeting will be utilised to collect further information from the GPs with a Focus
42
43 Group.
44
45

46
47 Creating a consensus: Two meetings will be held with the key stakeholders before the main trial
48
49 commences in order to share the methodology and add important information. National and
50
51 regional health experts will attend the meetings to provide feed-back. At the second meeting
52
53 the final version of the website will be presented.
54
55
56
57
58
59
60

1
2
3
4
5
6 **Competing interests:** None
7

8 **Funding:** This work is jointly supported by the Italian Ministry of Health and by the Regional
9
10 school for the training in Primary Care of the Region Friuli-Venezia Giulia, IT.
11
12
13
14
15
16
17
18
19

20 Reference List

21 1 Rehm J, Mathers C, Popova S, Thavorncharoensap M, Teerawattananon Y, Patra J. Global burden of disease and
22 injury and economic cost attributable to alcohol use and alcohol-use disorders. *Lancet* 2009 27;373(9682):2223-33
23
24

25
26
27 2 Anderson P, Baumberg B. Alcohol in Europe: A public health perspective. London: Institute of Alcohol Studies;
28 2006.
29

30
31
32 3 PASSI: progressi delle aziende sanitarie per la salute in Italia. December 2011 data www.epicentro.iss.it/passi
33

34
35
36 4 Simoes EJ, Mariotti S, Rossi A, Heim A, Lobello F, Mokdad AH, Scafato E. The Italian health surveillance
37 (SiVeAS) prioritization approach to reduce chronic disease risk factors. *Int J Public Health*. 2012Aug;57(4):719-33.
38

39
40
41 5 Rehm J, Scafato E. Indicators of alcohol consumption and attributable harm for monitoring and surveillance in
42 European Union countries. *Addiction*. 2011Mar;106Suppl1:4-10.
43

44
45
46 6 Drummond C, Gual A, Goos C, Godfrey C, Deluca P, Von Der Goltz C, Gmel G, Scafato E, Wolstenholme A, Mann
47 K, Coulton S, Kaner E. Identifying the gap between need and intervention for alcohol use disorders in Europe.
48
49 *Addiction*. 2011Mar;106 Suppl1:31-6.
50

51
52
53 7 Kaner EF.S., Dickinson HO, Beyer FR, Campbell F, Schlesinger C, Heather N, Saunders JB, Burnand B, Pienaar ED.
54 Effectiveness of brief alcohol interventions in primary care populations. *Cochrane Database of Systematic Reviews*
55 2007, Issue 2.
56
57
58
59
60

1
2
3
4
5 8 Anderson P Chisholm D, Fuhr DC. Effectiveness and cost-effectiveness of policies and programmes to reduce the
6 harm caused by alcohol. *Lancet* 2009Jun27;373(9682):2234-46.
7
8
9

10 9 Struzzo,P. Gianmoena, B. Kodilija, R.: The attitude and knowledge of Italian family doctors in respect to early
11 identification and brief intervention on alcohol & tobacco: a controlled study. *Family medicine on-line*. <http://www.priory.com/fam/italgp.htm>
12
13
14
15

16
17 10 Wallace P, Murray E, McCambridge J, Khadjesari Z, White IR, Thompson S, Kalaitzaki E Linke S, Godfrey C. On-
18 line randomized controlled trial of an Internet based psychologically enhanced intervention for people with hazardous
19 alcohol consumption *PLoS ONE* 2011;6(3):e14740.
20
21
22

23
24 11 <http://www.odhinproject.eu/>
25
26
27

28 12 STRUZZO P. De Faccio, S. Moscatelli, E. Identificazione precoce dei bevitori a rischio in Assistenza Primaria in
29 Italia: o ed adattamento del questionario AUDIT al contesto italiano e verifica dell' efficacia d'uso dello short-AUDIT
30 test nel contesto nazionale di assistenza primaria: uno studio di validazione interna. *Bollettino delle*
31 *Farmacodipendenze e Alcolismo*. 2006;XXIX:20-25.
32
33
34
35

36
37 13 Saunders, J.B., Aasland, O.G., Babor,T.F., de la Fuente, J.R. and Grant, M. Development of the Alcohol Use
38 Disorders Identification Test (AUDIT): WHO collaborative project on early detection of persons with harmful alcohol
39 consumption. II. *Addiction*, 1993;88:791-804
40
41
42

43
44 14 Rabin R, Charro F: EQ-5D: a measure of health status from the Euroqol group. *Annals of Medicine* 2001;33(5):337-
45 343.
46
47
48

49 15 W.R. Miller, S. Rollnick, Il colloquio motivazionale. Preparare la persona al cambiamento, Erickson, 2004
50
51
52

53 16 Linke S, McCambridge J, Khadjesari Z, Wallace P, Murray E. Development of a psychologically enhanced
54 interactive online intervention for hazardous drinking. *Alcohol Alcohol*. 2008Nov-Dec;43(6):669-74
55
56
57
58
59
60



Randomised controlled non-inferiority trial of primary care based facilitated access to an alcohol reduction website (EFAR-FVG): the study protocol

Journal:	<i>BMJ Open</i>
Manuscript ID:	bmjopen-2012-002304.R1
Article Type:	Protocol
Date Submitted by the Author:	11-Jan-2013
Complete List of Authors:	<p>Struzzo, Pierluigi; Regional Centre for the Training in Primary Care, Region Friuli-Venezia Giulia</p> <p>Scafato, Emanuele; WHO Collaborating Centre for Research and Health Promotion on Alcohol and Alcohol-Related Health Problems, Osservatorio Nazionale Alcol, Centro Nazionale di Epidemiologia, Sorveglianza e Promozione della Salute, Istituto Superiore della Sanità</p> <p>Mc Gregor, Richard; Codeface Ltd,</p> <p>Della Vedova, Roberto; Regional Centre for the Training in Primary Care, Region Friuli-Venezia Giulia</p> <p>Verbano, Lisa; Regional Centre for the Training in Primary Care, Region Friuli-Venezia Giulia</p> <p>Lygidakis, Charilaos; Movimento Giotto,</p> <p>Tersar, Costanza; Regional Centre for the Training in Primary Care, Region Friuli-Venezia Giulia</p> <p>Crapesi, Lucia; Regional Centre for the Training in Primary Care, Region Friuli-Venezia Giulia</p> <p>Tubaro, Gianni; Regional Centre for the Training in Primary Care, Region Friuli-Venezia Giulia</p> <p>Freemantle, Nick; University College London, Dept Primary Care and Population Health</p> <p>Wallace, Paul; University of Leeds, National Institute of Health Research Clinical Research Networks</p>
Primary Subject Heading:	General practice / Family practice
Secondary Subject Heading:	Addiction, Cardiovascular medicine, Evidence based practice, Public health, Health services research
Keywords:	Telemedicine < BIOTECHNOLOGY & BIOINFORMATICS, World Wide Web technology < BIOTECHNOLOGY & BIOINFORMATICS, HEALTH PROMOTION, Change management < HEALTH SERVICES ADMINISTRATION & MANAGEMENT, Health policy < HEALTH SERVICES ADMINISTRATION & MANAGEMENT, Risk management < HEALTH SERVICES ADMINISTRATION & MANAGEMENT

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28
29
30
31
32
33
34
35
36
37
38
39
40
41
42
43
44
45
46
47
48
49
50
51
52
53
54
55
56
57
58
59
60

SCHOLARONE™
Manuscripts

For peer review only

Revised paper January 2013

Title: Randomised controlled non-inferiority trial of primary care based facilitated access to an alcohol reduction website (EFAR-FVG): the study protocol

Pierluigi Struzzo¹, Emanuele Scafato², Richard McGregor³, Roberto Della Vedova¹, Lisa Verbano¹, Charilaos Lygidakis⁴, Costanza Tersar¹, Lucia Crapesi¹, Gianni Tubaro¹, Nick Freemantle⁵ and Paul Wallace.⁶

¹ Regional Centre for the Training in Primary Care, Region Friuli Venezia Giulia, Via Galvani, 1 Monfalcone, IT

² WHO Collaborating Centre for Research and Health Promotion on Alcohol and Alcohol-Related Health Problems, Osservatorio Nazionale Alcol, Centro Nazionale di Epidemiologia, Sorveglianza e Promozione della Salute, Istituto Superiore di Sanità, Rome, IT

³ Codeface Ltd. 4 Namrik Mews, Hove BN3 2TF, UK

⁴ Movimento Giotto, Bologna, IT

⁵ Dept Primary Care and Population Health, University College London. UK

⁶ National Institute of Health Research Clinical Research Networks, University of Leeds, UK

Corresponding author: Pierluigi Struzzo, Via Zara, 21 33100 Udine, IT pierluigi.struzzo@uniud.it
Tel. 0039 0432 299136; Fax 0039 0481 487578 Mobile 0039 3356138380

1 Revised paper January 2013

2
3 Article Summary –

4
5
6 Article focus

- 7
8
9
10
 - Is Web-site facilitated access to alcohol Brief Intervention as good as face to face BI?
 - Is primary care the right setting to promote internet?

11
12
13
14 Key messages

- 15
16
17
 - Risky drinking is an important health issue
 - General practices are too busy to provide BI on alcohol

18
19
20
21
22 Strengths and limitations

- 23
24
25
 - A new wide spread tool is proposed to reduce risky drinking
 - If not effective, this study promotes BI among GPs
 - The domestic use of computers is not widespread in Italy and community involvement

26
27
28
29
30
31
32 might be important

Revised paper January 2013

Abstract

Introduction: There is a strong body of evidence demonstrating effectiveness of brief interventions by primary care professionals for risky drinkers. However implementation levels remain low because of time constraints and other factors. Facilitated access to an alcohol reduction website offers primary care professionals a time-saving alternative to standard face to face intervention, but it is not known whether it is as effective.

Methods and analysis Randomised controlled non-inferiority trial for risky drinkers comparing facilitated access to a dedicated website with standard face to face brief intervention to be conducted in primary care settings in the Region of Friuli Giulia Venezia, Italy. Adult patients will be given a leaflet inviting them to log on to a website to complete the AUDIT-C alcohol screening questionnaire. Screen positives will be requested to complete an online trial module including consent, baseline assessment and randomisation to either standard intervention by the practitioner or facilitated access to an alcohol reduction website. Follow up assessment of risky drinking will be undertaken online at 1 month, 3 months and 1 year using the full AUDIT questionnaire. Proportions of risky drinkers in each group will be calculated and non-inferiority assessed against a specified margin of 10%. Assuming reduction of 30% of risky drinkers receiving standard intervention, 1000 patients will be required to give 90% power to reject the null hypothesis.

Ethics and dissemination: The protocol was approved by the Isontina Independent Local Ethics Committee on the 14/06/12. The findings of the trial will be disseminated through peer-reviewed journals, national and international conference presentations and public events involving the local administrations of the towns where the trial participants are resident.

Registration details: Trial registration number NCT: 01638338

Word Count : 304

Revised paper January 2013

Background

Hazardous alcohol consumption is a significant public health problem, with an estimated 3.8% of all global deaths and 4.6% of global disability-adjusted life years lost attributable to alcohol.[1]

The European Union (EU) is the heaviest drinking region of the world, drinking an average of 11 litres of pure alcohol per adult each year.[2] In Region Friuli Venezia Giulia risky alcohol

consumption varies between the 23,2 and the 37,4% of the general population, being more

significant in young adults (18-24 yrs./old).[3-6] There is strong evidence that screening and

brief interventions (SBIs) are effective in reducing both alcohol consumption and the harms

associated with hazardous drinking.[7] However, in primary care, less than 10% of hazardous

and harmful drinkers are identified and less than 5% of those who could benefit are offered

brief interventions.[8] One of the principal reasons for this is that conventional delivery of brief

intervention can add up to 15 minutes to the primary consultation. In Italy, research on the

topic of SBI in general practice is scarce and although there is some evidence about GPs'

knowledge and attitudes,[9] no evidence exists on the extent to which SBI's are currently

implemented.

The provision of facilitated access by primary care professionals to an alcohol reduction website

could significantly increase brief intervention rates by offering a time-saving alternative to face

to face intervention. A review of trials of computer based interventions in college drinkers found

them to be more effective than no treatment and as effective as alternative treatment

approaches. The recent online trial of Down Your Drink (<http://www.downyourdrink.org.uk/>)

indicated potentially significant reductions in alcohol consumption and risky drinking behaviours

in subjects who used the trial websites,[10] and a number of initiatives are underway to test the

acceptability of this approach.[11] The EU-funded ODHIN trial currently underway in 5 European

Revised paper January 2013

1
2
3 countries is designed to determine the impact of facilitated access on levels of implementation
4
5 of brief interventions by primary care practitioners. The DYD website has also been deployed in
6
7 two NHS Primary Care Trust settings in London, including automated baseline assessment of
8
9 alcohol consumption and alcohol related problems together with facilitated access by primary
10
11 care professionals. The initial findings suggest that facilitated access is both feasible and
12
13 attractive in primary care settings, but evidence is required to establish whether it is as effective
14
15 as standard intervention.
16
17
18
19

20 21 **METHODS AND ANALYSIS**

22
23
24
25
26 *Trial design:* EFAR FVG is a primary care based randomised controlled non-inferiority trial
27
28 comparing facilitated access to a dedicated website for risky drinkers with standard face to face
29
30 brief intervention. With the exception of the reference intervention, all components of the trial
31
32 will be delivered online to patients who have been given a unique trial log-on number by their
33
34 general practice. Access will be through the healthy lifestyle portal of the official website of the
35
36 Region of Friuli Venezia Giulia.
37
38
39

40
41
42 *The trial website:* The website is an Italian language online facility which includes modules for
43
44 all the key trial components including screening, consent, assessment, randomisation and
45
46 follow-up. It also incorporates the alcohol reduction website for the patients in the experimental
47
48 group. The site has been adapted from the www.DownYourDrink.org.uk (DYD) website
49
50 developed for the DYD-RCT trial (Wallace et al 2011). Details of the DYD website and the
51
52 psychological theory which has underpinned its development have been reported elsewhere
53
54 (Linke et al, 2009). Country-specific information such as recommended guidelines for alcohol
55
56
57
58
59
60

Revised paper January 2013

1
2
3 intake, definitions of standard drinks and alcohol-related laws will be included. The EFAR FVG
4
5 trial website will additionally incorporate a menu-driven facility to enable the GPs to personalise
6
7 the automated patient messages by adding photographs of themselves and audio/video
8
9 recorded messages.
10
11

12
13
14
15 *Practices* The trial will be conducted in primary care settings in the Italian region of Friuli Venezia
16
17 Giulia, and general practices will be invited by email and letter to participate in the study. Those
18
19 expressing an interest in the trial and willingness to actively distribute the brochure inviting
20
21 patients to log on to the trial website will be considered for inclusion in the study. Preference
22
23 will be given to practices with at least 1000 registered patients and a practice nurse and/or
24
25 receptionist.
26
27

28
29
30
31 *Training:* All participating GPs will attend a one day training event including an overview of the
32
33 EFAR FVG trial and interactive sessions on the delivery of face to face brief intervention for risky
34
35 drinkers. Participants will be encouraged to familiarise themselves with the trial website and
36
37 will have the opportunity to use the menu driven facility to create their own tailored patient
38
39 messages.
40
41

42
43
44
45 *Patient eligibility:* All patients aged 18 or over who attend the participating practices during the
46
47 study period will be eligible for the trial. Patients over 80 and those suffering from severe
48
49 psychiatric disorder, serious visual impairment or terminal illness will be excluded from the
50
51 study, as will those judged to have inadequate command of the Italian language.
52
53
54
55
56
57
58
59
60

Revised paper January 2013

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28
29
30
31
32
33
34
35
36
37
38
39
40
41
42
43
44
45
46
47
48
49
50
51
52
53
54
55
56
57
58
59
60

Screening: Eligible patients will be encouraged by their GP or another staff member access a specially designed healthy lifestyle website and will be given a trial brochure providing a unique access number which will enable them to log on. Once online, they will be asked to complete the 3-question short Alcohol Use Disorders Identification Test (AUDIT-C)[12] and to provide agreement to the result of the test to be sent to their practice. For the purposes of the trial, cut points of 4 for women and 5 for men will be used. Patients screening below the cut points will receive an online message advising that that their responses indicate that their stated drinking patterns fall within the guidelines for sensible drinking and will be encouraged to maintain their current drinking patterns. Those scoring at or above the cut points will receive a personalised online message from their GP advising that their stated drinking patterns indicate that they are at risk from their drinking and inviting them to take part in the study.

Consent: Screen positive subjects will be asked to complete an online form confirming that they do not meet any of the exclusion criteria and will then be invited to complete the online consent module. This provides information about the trial and what will be requested of them as participants. Those providing consent will be invited to complete the online baseline assessment.

Baseline assessment: The baseline assessment includes the following:

- 1: A demographic questionnaire seeking information on age, gender, level of education and occupation.
- 2: The 10 question Alcohol Use Disorders Identification Test (AUDIT) validated Italian version. [13]
- 3: D5-EQ The [quality of life questionnaire, validated Italian version [14]

Revised paper January 2013

1
2
3
4
5
6 *Randomization:* Those completing the baseline questionnaires will undergo automated online
7
8 randomization.
9

10
11
12 *Experimental group - facilitated access to the alcohol reduction website:* Those in the
13
14 experimental group will be taken to the introductory page containing a personalised online
15
16 message from their GP with tailored feedback about their responses to the alcohol
17
18 questionnaires. Personalised online messages from their GP will inform patients of the
19
20 importance of adopting healthy drinking choices, and will encourage them to spend at least 15
21
22 minutes engaging with the alcohol reduction website in the first instance. Patients will receive
23
24 an email one week later encouraging them to log on again. They will also be asked online to
25
26 review their alcohol consumption and will be invited to discuss their website experience when
27
28 they next see their GP.
29
30
31
32

33
34
35 *Reference group - face to face brief intervention:* Patients allocated to the standard
36
37 intervention group will be invited to check a box online which will automatically generate an
38
39 email to their practice requesting a GP appointment for a face to face brief intervention within
40
41 the next 7-10 days. At the appointment, the patient will receive an intervention be based on the
42
43 brief motivational interview:[15]
44
45

- 46
47 1. **Assessment** of the motivation to change the risky behaviour
- 48
49 2. **Assessment** of the Stage of Change
- 50
51 3. **Advice** - explicit advice on changing drinking behaviour
- 52
53 4. **Empathy** - role of counsellor important
- 54
55 5. **Capacity building** - instilling optimism that goals achievable
- 56
57
58
59
60

Revised paper January 2013

1
2
3
4
5
6 Non-attenders will be offered up to 3 additional appointments in order to optimise intervention
7
8 rates.

9
10
11
12 *Follow up assessment:* Follow up will take place at 1month, 3months and 12 months after
13
14 randomisation and each assessment will consist of the following:

- 15
16
17 1) The 10 question Alcohol Use Disorders Identification Test (AUDIT) validated Italian
18
19 version
20
21
22 2) D quality of life questionnaire, validated Italian version5-The EQ
23
24
25

26
27 Every effort will be made to optimise response rates. In the first instance, each patient in the
28
29 trial will receive an automated email requesting them to login and complete the assessment
30
31 questionnaires. Failure to do so will result in further emails at 1 week and 2 week intervals.

32
33 Persistent failure will be notified to the patient's GP who will contact them by letter, phone or in
34
35 person in order to ensure that their assessment is completed.
36
37
38
39

40
41 *Statistical analysis:* The principal outcome measure will be the proportion of risky drinkers as
42
43 classified by responses to the AUDIT-10 question scale at 3 months following randomisation.

44
45 In order to assess non-inferiority of facilitated access compared with face-to-face brief
46
47 intervention, the proportions of risky drinkers in each group will be computed and compared
48
49 using generalised non linear mixed models accounting for general practices as random effects.

50
51 Facilitated access will be deemed not inferior to face-to-face treatment at a one sided alpha of
52
53 2.5 % if the difference between the proportions of risky drinkers in the facilitated access group
54
55 and the face-to-face brief intervention group is below a specified margin of non-inferiority of
56
57
58
59
60

Revised paper January 2013

1
2
3 10%. Assuming a reduction of 30% in the proportion of risky drinkers in the face-to-face
4
5 intervention group and allowing for overall attrition of 10% of patients in the trial, it is
6
7 calculated that 500 patients will be required in each group to give the trial 90% power (1-beta)
8
9 to reject the null hypothesis that facilitated access is inferior to face-to face intervention. All
10
11 analyses will be described in a detailed statistical analysis plan which will be completed before
12
13 unblinding and database lock.
14
15

16
17
18
19 **Data management and security:**

20
21 Regular checks of the quality of the data will be carried out under the supervision of the
22
23 research team. Data files generated by the patients' interactions with the alcohol reduction
24
25 website will be stored securely on servers in accordance with EU regulations. The only identifiers
26
27 will be the unique login number. The files generated by the practices linking the unique login
28
29 numbers to the patient identifiers will be will be stored securely along with other clinical data in
30
31 the practice and will be accessible only to practice staff.
32
33
34
35
36
37

38 **Ethical approval, research governance and data access.**

39
40 The protocol was approved on the 14/06/12 by the Independent Local Ethics Committee for
41
42 Clinical Research of the Health Services Agency N° 2 Isontina, Italy.
43
44
45

46
47 **Funding:**

48
49 This work is jointly supported by the Italian Ministry of Health and by the Regional school for the
50
51 training in Primary Care of the Region Friuli-Venezia Giulia, Italy.
52
53
54

55 **Authors' contributions:**

Revised paper January 2013

PS and PW are the principal investigators, designed the study and drafted the article. ES, RM, HL, RD, LV, CT; have made substantial contributions to conception and design of the project. NF has been involved in drafting the manuscript or revising it critically for important intellectual content. LC and GT: have given final approval of the version to be published

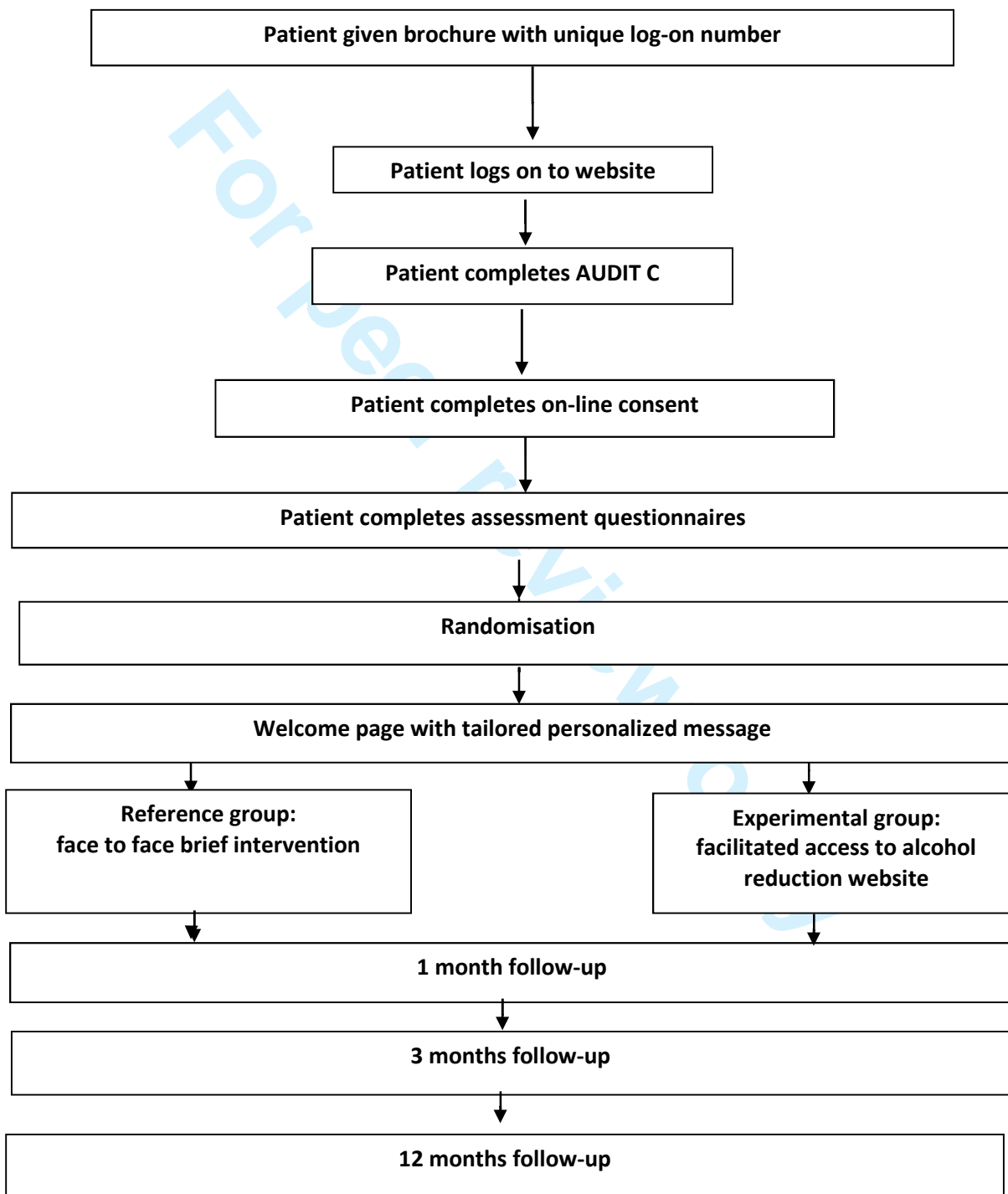
Competing interests:

None

Word count 2232

Revised paper January 2013

EFAR FVG TRIAL FLOW CHART



Revised paper January 2013

References

- 1 Rehm J, Mathers C, Popova S, Thavorncharoensap M, Teerawattananon Y, Patra J. Global burden of disease and injury and economic cost attributable to alcohol use and alcohol-use disorders. *Lancet* 2009 27;373(9682):2223-33
- 2 Anderson P, Baumberg B. Alcohol in Europe: A public health perspective. London: Institute of Alcohol Studies; 2006.
- 3 PASSI: progressi delle aziende sanitarie per la salute in Italia. December 2011 data www.epicentro.iss.it/passi
- 4 Simoes EJ, Mariotti S, Rossi A, Heim A, Lobello F, Mokdad AH, Scafato E. The Italian health surveillance (SiVeAS) prioritization approach to reduce chronic disease risk factors. *Int J Public Health*. 2012Aug;57(4):719-33.
- 5 Rehm J, Scafato E. Indicators of alcohol consumption and attributable harm for monitoring and surveillance in European Union countries. *Addiction*. 2011Mar;106Suppl1:4-10.
- 6 Drummond C, Gual A, Goos C, Godfrey C, Deluca P, Von Der Goltz C, Gmel G, Scafato E, Wolstenholme A, Mann K, Coulton S, Kaner E. Identifying the gap between need and intervention for alcohol use disorders in Europe. *Addiction*. 2011Mar;106 Suppl1:31-6.
- 7 Kaner EF.S., Dickinson HO, Beyer FR, Campbell F, Schlesinger C, Heather N, Saunders JB, Burnand B, Pienaar ED. Effectiveness of brief alcohol interventions in primary care populations. *Cochrane Database of Systematic Reviews* 2007, Issue 2.
- 8 Anderson P Chisholm D, Fuhr DC. Effectiveness and cost-effectiveness of policies and programmes to reduce the harm caused by alcohol. *Lancet* 2009Jun27;373(9682):2234-46.
- 9 Struzzo, P. Gianmoena, B. Kodilija, R.: The attitude and knowledge of Italian family doctors in respect to early identification and brief intervention on alcohol & tobacco: a controlled study. *Family medicine on-line*. <http://www.priory.com/fam/italgp.htm>
- 10 Wallace P, Murray E, McCambridge J, Khadjesari Z, White IR, Thompson S, Kalaitzaki E Linke S, Godfrey C. On-line randomized controlled trial of an Internet based psychologically enhanced intervention for people with hazardous alcohol consumption *PLoS ONE* 2011;6(3):e14740.
- 11 <http://www.odhinproject.eu/>
- 12 Struzzo P. De Faccio, S. Moscatelli, E. Identificazione precoce dei bevitori a rischio in Assistenza Primaria in Italia: o ed adattamento del questionario AUDIT al contesto italiano e verifica dell' efficacia d'uso dello short-AUDIT test nel contesto nazionale di assistenza primaria: uno studio di validazione interna. *Bollettino delle Farmacodipendenze e Alcolismo*. 2006;XXIX:20-25.

Revised paper January 2013

1
2
3 13 Saunders, J.B., Aasland, O.G., Babor, T.F., de la Fuente, J.R. and Grant, M. Development of the
4 Alcohol Use Disorders Identification Test (AUDIT): WHO collaborative project on early detection
5 of persons with harmful alcohol consumption. II. *Addiction*, 1993;88:791-804
6

7
8 14 Rabin R, Charro F: EQ-5D: a measure of health status from the Euroqol group. *Annals of*
9 *Medicine* 2001;33(5):337-343.
10

11 15 W.R. Miller, S. Rollnick, Il colloquio motivazionale. Preparare la persona al cambiamento,
12 Erickson, 2004
13

14
15 16 Linke S, McCambridge J, Khadjesari Z, Wallace P, Murray E. Development of a psychologically
16 enhanced interactive online intervention for hazardous drinking. *Alcohol Alcohol*. 2008Nov-
17 Dec;43(6):669-74
18
19
20
21
22
23
24
25
26
27
28
29
30
31
32
33
34
35
36
37
38
39
40
41
42
43
44
45
46
47
48
49
50
51
52
53
54
55
56
57
58
59
60

Revised paper January 2013

Title: Randomised controlled non-inferiority trial of primary care based facilitated access to an alcohol reduction website (EFAR-FVG): [the study protocol](#)

Pierluigi Struzzo¹, Emanuele Scafato², Richard McGregor³, Roberto Della Vedova¹, Lisa Verbano¹, Charilaos Lygidakis⁴, Costanza Tersar¹, Lucia Crapesi¹, Gianni Tubaro¹, Nick Freemantle⁵ and Paul Wallace.⁶

¹ Regional Centre for the Training in Primary Care, Region Friuli Venezia Giulia, Via Galvani, 1 Monfalcone, IT

² WHO Collaborating Centre for Research and Health Promotion on Alcohol and Alcohol-Related Health Problems, Osservatorio Nazionale Alcol, Centro Nazionale di Epidemiologia, Sorveglianza e Promozione della Salute, Istituto Superiore di Sanità, Rome, IT

³ Codeface Ltd. 4 Namrik Mews, Hove BN3 2TF, UK

⁴ Movimento Giotto, Bologna, IT

⁵ Dept Primary Care and Population Health, University College London. UK

⁶ National Institute of Health Research Clinical Research Networks, University of Leeds, UK

Corresponding author: Pierluigi Struzzo, Via Zara, 21 33100 Udine, IT pierluigi.struzzo@uniud.it
Tel. 0039 0432 299136; Fax 0039 0481 487578 Mobile 0039 3356138380

Revised paper January 2013

1
2
3 Article Summary –
4

5
6 Article focus
7

- 8
9
10 • Is Web-site facilitated access to alcohol Brief Intervention as good as face to face BI?
11
12 • Is primary care the right setting to promote internet?
13

14 Key messages
15

- 16
17 • Risky drinking is an important health issue
18
19
20 • General practices are too busy to provide BI on alcohol
21

22 Strengths and limitations
23

- 24
25 • A new wide spread tool is proposed to reduce risky drinking
26
27 • If not effective, this study promotes BI among GPs
28
29
30 • The domestic use of computers is not widespread in Italy and community involvement
31
32 might be important
33
34
35
36
37
38
39
40
41
42
43
44
45
46
47
48
49
50
51
52
53
54
55
56
57
58
59
60

Revised paper January 2013

Abstract

Introduction: There is a strong body of evidence demonstrating effectiveness of brief interventions by primary care professionals for risky drinkers. However implementation levels remain low because of time constraints and other factors. Facilitated access to an alcohol reduction website offers primary care professionals a time-saving alternative to standard face to face intervention, but it is not known whether it is as effective.

Methods and analysis Randomised controlled non-inferiority trial for risky drinkers comparing facilitated access to a dedicated website with standard face to face brief intervention to be conducted in primary care settings in the Region of Friuli Giulia Venezia, Italy. Adult patients will be given a leaflet inviting them to log on to a website to complete the AUDIT-C alcohol screening questionnaire. Screen positives will be requested to complete an online trial module including consent, baseline assessment and randomisation to either standard intervention by the practitioner or facilitated access to an alcohol reduction website. Follow up assessment of risky drinking will be undertaken online at 1 month, 3 months and 1 year using the full AUDIT questionnaire. Proportions of risky drinkers in each group will be calculated and non-inferiority assessed against a specified margin of 10%. Assuming reduction of 30% of risky drinkers receiving standard intervention, 1000 patients will be required to give 90% power to reject the null hypothesis.

Ethics and dissemination: The protocol was approved by the Isontina Independent Local Ethics Committee on the 14/06/12. The findings of the trial will be disseminated through peer-reviewed journals, national and international conference presentations and public events involving the local administrations of the towns where the trial participants are resident.

Registration details: Trial registration number NCT: 01638338

Word Count : 304

Revised paper January 2013

Background

Hazardous alcohol consumption is a significant public health problem, with an estimated 3.8% of all global deaths and 4.6% of global disability-adjusted life years lost attributable to alcohol.[1]

The European Union (EU) is the heaviest drinking region of the world, drinking an average of 11 litres of pure alcohol per adult each year.[2] In Region Friuli Venezia Giulia risky alcohol

consumption varies between the 23,2 and the 37,4% of the general population, being more significant in young adults (18-24 yrs./old).[3-6] There is strong evidence that screening and

brief interventions (SBIs) are effective in reducing both alcohol consumption and the harms associated with hazardous drinking.[7] However, in primary care, less than 10% of hazardous

and harmful drinkers are identified and less than 5% of those who could benefit are offered

brief interventions.[8] One of the principal reasons for this is that conventional delivery of brief

intervention can add up to 15 minutes to the primary consultation. In Italy, research on the

topic of SBI in general practice is scarce and although there is some evidence about GPs'

knowledge and attitudes,[9] no evidence exists on the extent to which SBI's are currently

implemented.

The provision of facilitated access by primary care professionals to an alcohol reduction website

could significantly increase brief intervention rates by offering a time-saving alternative to face

to face intervention. A review of trials of computer based interventions in college drinkers found

them to be more effective than no treatment and as effective as alternative treatment

approaches. The recent online trial of Down Your Drink (<http://www.downyourdrink.org.uk/>)

indicated potentially significant reductions in alcohol consumption and risky drinking behaviours

in subjects who used the trial websites,[10] and a number of initiatives are underway to test the

acceptability of this approach.[11] The EU-funded ODHIN trial currently underway in 5 European

Revised paper January 2013

1
2
3 countries is designed to determine the impact of facilitated access on levels of implementation
4
5 of brief interventions by primary care practitioners. The DYD website has also been deployed in
6
7 two NHS Primary Care Trust settings in London, including automated baseline assessment of
8
9 alcohol consumption and alcohol related problems together with facilitated access by primary
10
11 care professionals. The initial findings suggest that facilitated access is both feasible and
12
13 attractive in primary care settings, but evidence is required to establish whether it is as effective
14
15 as standard intervention.
16
17
18
19

20 21 **METHODS AND ANALYSIS**

22
23
24
25
26 *Trial design:* EFAR FVG is a primary care based randomised controlled non-inferiority trial
27
28 comparing facilitated access to a dedicated website for risky drinkers with standard face to face
29
30 brief intervention. With the exception of the reference intervention, all components of the trial
31
32 will be delivered online to patients who have been given a unique trial log-on number by their
33
34 general practice. Access will be through the healthy lifestyle portal of the official website of the
35
36 Region of Friuli Venezia Giulia.
37
38
39

40
41
42 *The trial website:* The website is an Italian language online facility which includes modules for
43
44 all the key trial components including screening, consent, assessment, randomisation and
45
46 follow-up. It also incorporates the alcohol reduction website for the patients in the experimental
47
48 group. The site has been adapted from the www.DownYourDrink.org.uk (DYD) website
49
50 developed for the DYD-RCT trial (Wallace et al 2011). Details of the DYD website and the
51
52 psychological theory which has underpinned its development have been reported elsewhere
53
54 (Linke et al, 2009). Country-specific information such as recommended guidelines for alcohol
55
56
57
58
59
60

Revised paper January 2013

1
2
3 intake, definitions of standard drinks and alcohol-related laws will be included. The EFAR FVG
4
5 trial website will additionally incorporate a menu-driven facility to enable the GPs to personalise
6
7 the automated patient messages by adding photographs of themselves and audio/video
8
9 recorded messages.
10
11

12
13
14
15 *Practices* The trial will be conducted in primary care settings in the Italian region of Friuli Venezia
16
17 Giulia, and general practices will be invited by email and letter to participate in the study. Those
18
19 expressing an interest in the trial and willingness to actively distribute the brochure inviting
20
21 patients to log on to the trial website will be considered for inclusion in the study. Preference
22
23 will be given to practices with at least 1000 registered patients and a practice nurse and/or
24
25 receptionist.
26
27

28
29
30
31 *Training:* All participating GPs will attend a one day training event including an overview of the
32
33 EFAR FVG trial and interactive sessions on the delivery of face to face brief intervention for risky
34
35 drinkers. Participants will be encouraged to familiarise themselves with the trial website and
36
37 will have the opportunity to use the menu driven facility to create their own tailored patient
38
39 messages.
40
41

42
43
44
45 *Patient eligibility:* All patients aged 18 or over who attend the participating practices during the
46
47 study period will be eligible for the trial. Patients over 80 and those suffering from severe
48
49 psychiatric disorder, serious visual impairment or terminal illness will be excluded from the
50
51 study, as will those judged to have inadequate command of the Italian language.
52
53
54
55
56
57
58
59
60

Revised paper January 2013

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28
29
30
31
32
33
34
35
36
37
38
39
40
41
42
43
44
45
46
47
48
49
50
51
52
53
54
55
56
57
58
59
60

Screening: Eligible patients will be encouraged by their GP or another staff member access a specially designed healthy lifestyle website and will be given a trial brochure providing a unique access number which will enable them to log on. Once online, they will be asked to complete the 3-question short Alcohol Use Disorders Identification Test (AUDIT-C)[12] and to provide agreement to the result of the test to be sent to their practice. For the purposes of the trial, cut points of 4 for women and 5 for men will be used. Patients screening below the cut points will receive an online message advising that that their responses indicate that their stated drinking patterns fall within the guidelines for sensible drinking and will be encouraged to maintain their current drinking patterns. Those scoring at or above the cut points will receive a personalised online message from their GP advising that their stated drinking patterns indicate that they are at risk from their drinking and inviting them to take part in the study.

Consent: Screen positive subjects will be asked to complete an online form confirming that they do not meet any of the exclusion criteria and will then be invited to complete the online consent module. This provides information about the trial and what will be requested of them as participants. Those providing consent will be invited to complete the online baseline assessment.

Baseline assessment: The baseline assessment includes the following:

- 1: A demographic questionnaire seeking information on age, gender, level of education and occupation.
- 2: The 10 question Alcohol Use Disorders Identification Test (AUDIT) validated Italian version. [13]
- 3: D5-EQ The [quality of life questionnaire, validated Italian version [14]

Revised paper January 2013

1
2
3
4
5
6 *Randomization:* Those completing the baseline questionnaires will undergo automated online
7
8 randomization.
9

10
11
12 *Experimental group - facilitated access to the alcohol reduction website:* Those in the
13
14 experimental group will be taken to the introductory page containing a personalised online
15
16 message from their GP with tailored feedback about their responses to the alcohol
17
18 questionnaires. Personalised online messages from their GP will inform patients of the
19
20 importance of adopting healthy drinking choices, and will encourage them to spend at least 15
21
22 minutes engaging with the alcohol reduction website in the first instance. Patients will receive
23
24 an email one week later encouraging them to log on again. They will also be asked online to
25
26 review their alcohol consumption and will be invited to discuss their website experience when
27
28 they next see their GP.
29
30
31
32

33
34
35 *Reference group - face to face brief intervention:* Patients allocated to the standard
36
37 intervention group will be invited to check a box online which will automatically generate an
38
39 email to their practice requesting a GP appointment for a face to face brief intervention within
40
41 the next 7-10 days. At the appointment, the patient will receive an intervention be based on the
42
43 brief motivational interview:[15]
44
45

- 46
47 1. **Assessment** of the motivation to change the risky behaviour
- 48
49 2. **Assessment** of the Stage of Change
- 50
51 3. **Advice** - explicit advice on changing drinking behaviour
- 52
53 4. **Empathy** - role of counsellor important
- 54
55 5. **Capacity building** - instilling optimism that goals achievable
- 56
57
58
59
60

Revised paper January 2013

1
2
3
4
5
6 Non-attenders will be offered up to 3 additional appointments in order to optimise intervention
7
8 rates.

9
10
11
12 *Follow up assessment:* Follow up will take place at 1month, 3months and 12 months after
13 randomisation and each assessment will consist of the following:

- 14
15
16
17 1) The 10 question Alcohol Use Disorders Identification Test (AUDIT) validated Italian
18 version
19
20
21 2) D quality of life questionnaire, validated Italian version5-The EQ
22
23
24
25

26 Every effort will be made to optimise response rates. In the first instance, each patient in the
27 trial will receive an automated email requesting them to login and complete the assessment
28 questionnaires. Failure to do so will result in further emails at 1 week and 2 week intervals.
29
30

31 Persistent failure will be notified to the patient's GP who will contact them by letter, phone or in
32 person in order to ensure that their assessment is completed.
33
34
35
36
37
38
39

40 *Statistical analysis:* The principal outcome measure will be the proportion of risky drinkers as
41 classified by responses to the AUDIT-10 question scale at 3 months following randomisation.
42
43

44 In order to assess non-inferiority of facilitated access compared with face-to-face brief
45 intervention, the proportions of risky drinkers in each group will be computed and compared
46 using generalised non linear mixed models accounting for general practices as random effects.
47
48
49

50 Facilitated access will be deemed not inferior to face-to-face treatment at a one sided alpha of
51 2.5 % if the difference between the proportions of risky drinkers in the facilitated access group
52 and the face-to-face brief intervention group is below a specified margin of non-inferiority of
53
54
55
56
57
58
59
60

Revised paper January 2013

1
2
3 10%. Assuming a reduction of 30% in the proportion of risky drinkers in the face-to-face
4
5 intervention group and allowing for overall attrition of 10% of patients in the trial, it is
6
7 calculated that 500 patients will be required in each group to give the trial 90% power (1-beta)
8
9 to reject the null hypothesis that facilitated access is inferior to face-to face intervention. All
10
11 analyses will be described in a detailed statistical analysis plan which will be completed before
12
13 unblinding and database lock.
14
15

16 17 18 19 **Data management and security:**

20
21 Regular checks of the quality of the data will be carried out under the supervision of the
22
23 research team. Data files generated by the patients' interactions with the alcohol reduction
24
25 website will be stored securely on servers in accordance with EU regulations. The only identifiers
26
27 will be the unique login number. The files generated by the practices linking the unique login
28
29 numbers to the patient identifiers will be will be stored securely along with other clinical data in
30
31 the practice and will be accessible only to practice staff.
32
33
34
35
36
37

38 **Ethical approval, research governance and data access.**

39
40 The protocol was approved on the 14/06/12 by the Independent Local Ethics Committee for
41
42 Clinical Research of the Health Services Agency N° 2 Isontina, Italy.
43
44
45
46

47 **Funding:**

48
49 This work is jointly supported by the Italian Ministry of Health and by the Regional school for the
50
51 training in Primary Care of the Region Friuli-Venezia Giulia, Italy.
52
53
54

55 **Authors' contributions:**

Revised paper January 2013

PS and PW are the principal investigators, designed the study and drafted the article. ES, RM, HL, RD, LV, CT; have made substantial contributions to conception and design of the project. NF has been involved in drafting the manuscript or revising it critically for important intellectual content. LC and GT: have given final approval of the version to be published

Competing interests:

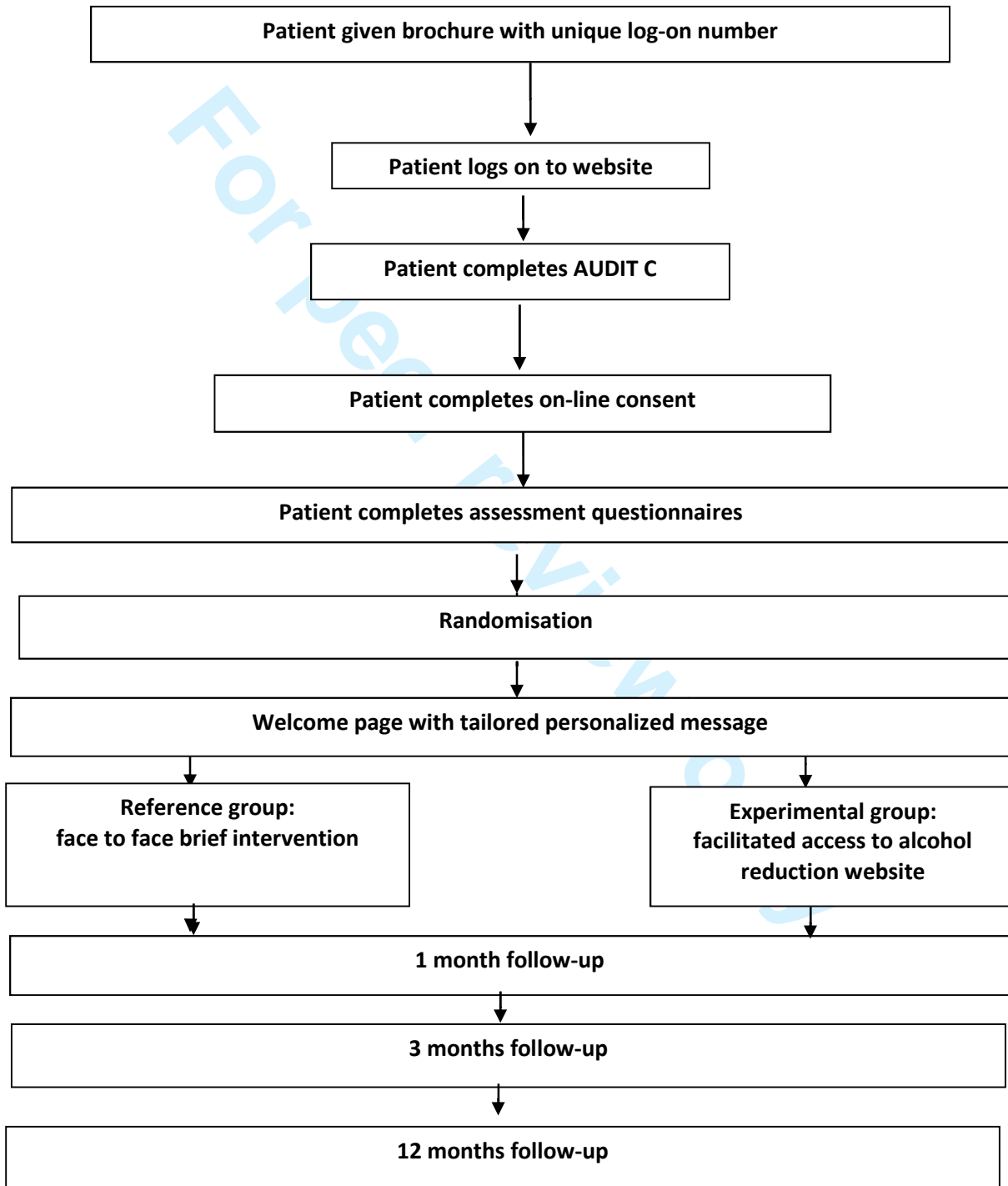
None

Word count [2232](#)

For peer review only

Revised paper January 2013

EFAR FVG TRIAL FLOW CHART



Revised paper January 2013

References

- 1 Rehm J, Mathers C, Popova S, Thavorncharoensap M, Teerawattananon Y, Patra J. Global burden of disease and injury and economic cost attributable to alcohol use and alcohol-use disorders. *Lancet* 2009 27;373(9682):2223-33
- 2 Anderson P, Baumberg B. Alcohol in Europe: A public health perspective. London: Institute of Alcohol Studies; 2006.
- 3 PASSI: progressi delle aziende sanitarie per la salute in Italia. December 2011 data www.epicentro.iss.it/passi
- 4 Simoes EJ, Mariotti S, Rossi A, Heim A, Lobello F, Mokdad AH, Scafato E. The Italian health surveillance (SiVeAS) prioritization approach to reduce chronic disease risk factors. *Int J Public Health*. 2012Aug;57(4):719-33.
- 5 Rehm J, Scafato E. Indicators of alcohol consumption and attributable harm for monitoring and surveillance in European Union countries. *Addiction*. 2011Mar;106Suppl1:4-10.
- 6 Drummond C, Gual A, Goos C, Godfrey C, Deluca P, Von Der Goltz C, Gmel G, Scafato E, Wolstenholme A, Mann K, Coulton S, Kaner E. Identifying the gap between need and intervention for alcohol use disorders in Europe. *Addiction*. 2011Mar;106 Suppl1:31-6.
- 7 Kaner EF.S., Dickinson HO, Beyer FR, Campbell F, Schlesinger C, Heather N, Saunders JB, Burnand B, Pienaar ED. Effectiveness of brief alcohol interventions in primary care populations. *Cochrane Database of Systematic Reviews* 2007, Issue 2.
- 8 Anderson P Chisholm D, Fuhr DC. Effectiveness and cost-effectiveness of policies and programmes to reduce the harm caused by alcohol. *Lancet* 2009Jun27;373(9682):2234-46.
- 9 Struzzo, P. Gianmoena, B. Kodilija, R.: The attitude and knowledge of Italian family doctors in respect to early identification and brief intervention on alcohol & tobacco: a controlled study. *Family medicine on-line*. <http://www.priory.com/fam/italgp.htm>
- 10 Wallace P, Murray E, McCambridge J, Khadjesari Z, White IR, Thompson S, Kalaitzaki E Linke S, Godfrey C. On-line randomized controlled trial of an Internet based psychologically enhanced intervention for people with hazardous alcohol consumption *PLoS ONE* 2011;6(3):e14740.
- 11 <http://www.odhinproject.eu/>
- 12 Struzzo P. De Faccio, S. Moscatelli, E. Identificazione precoce dei bevitori a rischio in Assistenza Primaria in Italia: o ed adattamento del questionario AUDIT al contesto italiano e verifica dell' efficacia d'uso dello short-AUDIT test nel contesto nazionale di assistenza primaria: uno studio di validazione interna. *Bollettino delle Farmacodipendenze e Alcolismo*. 2006;XXIX:20-25.

Revised paper January 2013

1
2
3 13 Saunders, J.B., Aasland, O.G., Babor, T.F., de la Fuente, J.R. and Grant, M. Development of the
4 Alcohol Use Disorders Identification Test (AUDIT): WHO collaborative project on early detection
5 of persons with harmful alcohol consumption. II. *Addiction*, 1993;88:791-804
6
7

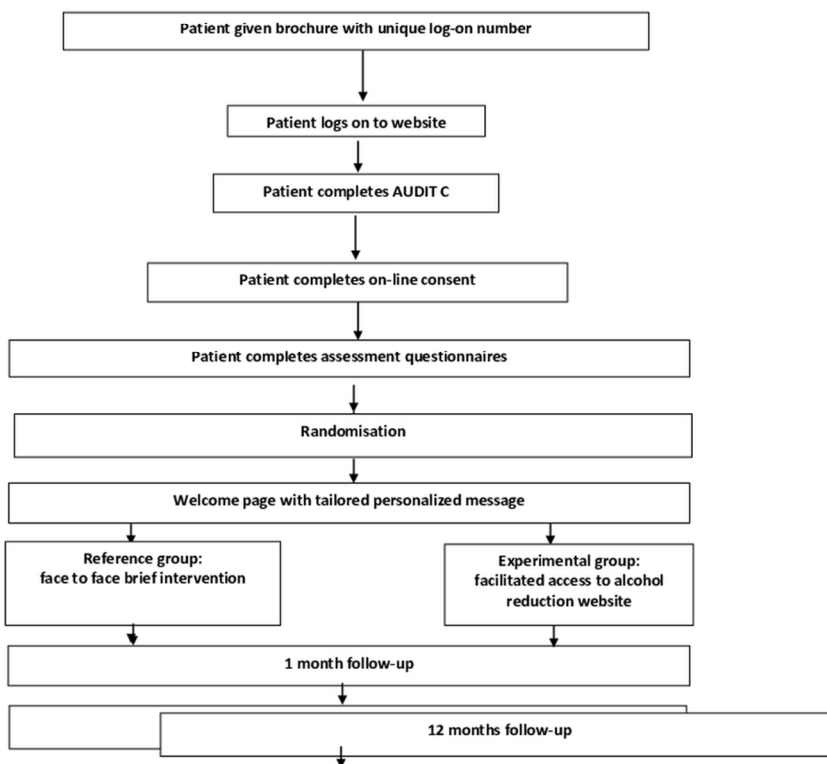
8 14 Rabin R, Charro F: EQ-5D: a measure of health status from the Euroqol group. *Annals of*
9 *Medicine* 2001;33(5):337-343.
10

11 15 W.R. Miller, S. Rollnick, Il colloquio motivazionale. Preparare la persona al cambiamento,
12 Erickson, 2004
13

14 16 Linke S, McCambridge J, Khadjesari Z, Wallace P, Murray E. Development of a psychologically
15 enhanced interactive online intervention for hazardous drinking. *Alcohol Alcohol*. 2008Nov-
16 Dec;43(6):669-74
17
18
19
20
21
22
23
24
25
26
27
28
29
30
31
32
33
34
35
36
37
38
39
40
41
42
43
44
45
46
47
48
49
50
51
52
53
54
55
56
57
58
59
60

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28
29
30
31
32
33
34
35
36
37
38
39
40
41
42
43
44
45
46
47
48
49
50
51
52
53
54
55
56
57
58
59
60

EFAR FVG TRIAL FLOW CHART



90x116mm (300 x 300 DPI)