RCT
Potential PURL Review Form
PURL Jam Version

Version #11 October 29, 2009

PURLs Surveillance System
Family Physicians Inquiries Network

SECTION 1: Identifying Information for Nominated Potential PURL
[to be completed by PURLs Project Manager]

1. Citation	Lindson-Hawley N, Banting M, West R, Michie S, Shinkins B, Aveyard P. Gradual Versus Abrupt Smoking Cessation: A Randomized, Controlled Noninferiority Trial. Ann Intern Med. 2016 Mar 15.
2. Hypertext link to PDF of full article	https://www.ncbi.nlm.nih.gov/pubmed/?term=26975007
3. First date published study available to readers	03/15/2016
4. PubMed ID	26975007
5. Nominated By	Other Other: Debbie Miller
6. Institutional Affiliation of Nominator	University of Chicago Other:
7. Date Nominated	03/16/16
8. Identified Through	Other Other: TOC
9. PURLS Editor Reviewing Nominated Potential PURL	Kate Rowland Other:
10. Nomination Decision Date	04/04/16
11. Potential PURL Review Form (PPRF) Type	RCT
12. Other comments, materials or discussion	
13. Assigned Potential PURL Reviewer	Debbie Miller, MD
14. Reviewer Affiliation	University of Chicago Other:
15. Date Review Due	05/05/16
16. Abstract	BACKGROUND: Most smoking cessation guidelines advise quitting abruptly. However, many quit attempts involve gradual cessation. If gradual cessation is as successful, smokers can be advised to quit either way. OBJECTIVE: To examine the success of quitting smoking by gradual compared with abrupt quitting. DESIGN: Randomized, controlled noninferiority trial. (International Standardized Randomized Controlled

Trial Number Register: ISRCTN22526020).
SETTING:
Primary care clinics in England.
PARTICIPANTS:
697 adult smokers with tobacco addiction.
INTERVENTION:
Participants quit smoking abruptly or reduced smoking gradually by 75% in the 2 weeks before quitting. Both groups received behavioral support from nurses and used nicotine replacement before and after quit day.
MEASUREMENTS:
The primary outcome measure was prolonged validated abstinence from smoking 4 weeks after quit day. The secondary outcome was prolonged, validated, 6-month abstinence.
RESULTS:
At 4 weeks, 39.2% (95% CI, 34.0% to 44.4%) of the participants in the gradual-cessation group were abstinent compared with 49.0% (CI, 43.8% to 54.2%) in the abrupt-cessation group (relative risk, 0.80 [CI, 0.66 to 0.93]). At 6 months, 15.5% (CI, 12.0% to 19.7%) of the participants in the gradual-cessation group were abstinent compared with 22.0% (CI, 18.0% to 26.6%) in the abrupt-cessation group (relative risk, 0.71 [CI, 0.46 to 0.91]). Participants who preferred gradual cessation were significantly less likely to be abstinent at 4 weeks than those who preferred abrupt cessation (38.3% vs 52.2%; P = 0.007).
LIMITATIONS:
Blinding was impossible. Most participants were white.
CONCLUSION:
Quitting smoking abruptly is more likely to lead to lasting abstinence than cutting down first, even for smokers who initially prefer to quit by gradual reduction.

17. Pending PURL Review Date	May 4, 2016

SECTION 2: Critical Appraisal of Validity
[to be completed by the Potential PURL Reviewer]
[to be revised by the Pending PURL Reviewer if needed]

1. Number of patients starting each arm of the study?	abrupt = 355; gradual = 342
2. Main characteristics of study patients (inclusions, exclusions, demographics, settings, etc.)?	Inclusion: Adult smokers addicted to tobacco (15 cigs per day or 12.5 g of loose-leaf tobacco per day or end expiratory CO of 15 ppm or more). Willing to quit smoking 2 weeks after enrollment. Exclusion: current participation in cessation treatment, contraindications to nicotine replacment, current participation in a other medical trials, any circumstances precluding ability to meet the demands of the trial.
3. Intervention(s) being investigated?	Gradual smoking cessation over 2 weeks with NRT
4. Comparison treatment(s), placebo, or nothing?	Abrupt smoking cessation with NRT 2 weeks after study enrollment
5. Length of follow up? Note specified end points e.g. death, cure, etc.	4 weeks, 8 weeks, and 6 months
6. What outcome measures are used? List all that assess effectiveness.	Primary : Russell standard 4 week abstinence (allows 2 week grace period from quit date for slips and uses intention to treat approach that assumes those lost to f/u are smokers. Validated by an exhaled CO concentration of less than 10 ppm. Secondary: Russell standard abstinence at 8 week and 6 month, 7 day point prevalence abstinence at 4 week, 8 week, and 6 months validated by exhaled CO concentration of less than 10 ppm; urges to smoke and nicotine withdrawal symptoms at 1 and 4 weeks.
7. What is the effect of the intervention(s)? Include absolute risk, relative risk, NNT, CI, p-	4 week Russell Standard abstinence Gradual cessation: 39.2 % (CI 34 to 44.4 %) 4 week Russell Standard abstinence Abrupt cessation: 49% (CI 43.8 to 54.2 %) Noninferiority not shown (unadjusted RR 0.80, 90 % CI 0.68 to 0.96)

values, etc.	4 week abstinence less likely in the gradual cessation group (RR 0.80, 95%CI 0.66 to 0.93)
8. What are the adverse effects of intervention compared with no intervention?	cold sweats and salivating were more common in the gradual cessation group in the 2 prequit weeks
9. Study addresses an appropriate and clearly focused question - ***select one***	☒ Well covered ☐ Adequately addressed ☐ Poorly addressed ☐ Not applicable Comments:
10. Random allocation to comparison groups	☒ Well covered ☐ Adequately addressed ☐ Poorly addressed ☐ Not applicable Comments:
11. Concealed allocation to comparison groups	☒ Well covered ☐ Adequately addressed ☐ Poorly addressed ☐ Not applicable Comments:
12. Subjects and investigators kept “blind” to comparison group allocation	☐ Well covered ☒ Adequately addressed ☐ Poorly addressed ☐ Not applicable Comments:
12. Comparison groups are similar at the start of the trial	☒ Well covered ☐ Adequately addressed ☐ Poorly addressed ☐ Not applicable Comments:
14. Were there any differences between the groups/arms of the study other than the intervention under investigation? If yes, please indicate whether the differences are a potential source of bias.	☒ Well covered ☐ Adequately addressed ☐ Poorly addressed ☐ Not applicable Comments:
15. Were all relevant outcomes measured in a standardized, valid, and reliable way?	☒ Well covered ☐ Adequately addressed ☐ Poorly addressed ☐ Not applicable Comments:
16. Are patient oriented outcomes included? If yes, what are they?	smoking cessation rates by method, adverse events

17. What percent dropped out, and were lost to follow up? Could this bias the results? How?	17 % in the abrupt group (N = 59) and 33 % (N=113) in the gradual group although authors did use ITT analysis so all randomized participants were analyzed in their assigned group thus missing abstinence data was analyzed as "non-abstinent"
18. Was there an intention-to-treat analysis? If not, could this bias the results? How?	yes
19. If a multi-site study, are results comparable for all sites?	Yes. Stratification was achieved by each of 23 research nurses in separate practices but balance was addressed through the randomization method
20. Is the funding for the trial a potential source of bias? If yes, what measures were taken to insure scientific integrity?	Grant support from the British Heart Foundation and authors with outside the study relationships with Pfizer and Glaxo SmithKline which make nicotine replacement aids. These relationships are not likely to have biased the study.
21. To which patients might the findings apply? Include patients in the study and other patients to whom the findings may be generalized.	British, white adults that met inclusion criteria and possibly any adult that smokes similar numbers of cigarettes
22. In what care settings might the findings apply, or not apply?	Primary care, Pulmonology, Cardiology, CT Surgery
23. To which clinicians or policy makers might the findings be relevant?	Family Medicine, Pediatrics, OB/GYN, Pulmonology, Cardiology; National and International Public Health organizations

SECTION 3: Review of Secondary Literature
[to be completed by the Potential PURL Reviewer]
[to be revised by the Pending PURL Reviewer as needed]

Citation Instructions	For UpTo Date citations, use style modified from http://www.uptodate.com/home/help/faq/using_UTD/index.html#cite & AMA style. Always use Basow DS as editor & current year as publication year. EXAMPLE: Auth I. Title of article. {insert author name if given, & search terms or title.} In: Basow DS, ed. UpToDate [database online]. Waltham, Mass: UpToDate; 2009. Available at: http://www.uptodate.com. {Insert dated modified if given.} Accessed February 12, 2009. {whatever date PPRF reviewer did their search.} For DynaMed, use the following style: Depression: treatment {insert search terms or title}. In: DynaMed [database online]. Available at: http://www.DynamicMedical.com. Last updated February 4, 2009. {Insert dated modified if given.} Accessed June 5, 2009.{search date}
1. DynaMed excerpts	
2. DynaMed citation/access date	Title. Author. In: DynaMed [database online]. Available at: www.DynamicMedical.com Last updated: . Accessed
3. Bottom line recommendation or summary of evidence from DynaMed (1-2 sentences)	

4. UpToDate excerpts

5. UpToDate citation/access date

Always use Basow DS as editor & current year as publication year.
Title. Author. In: UpToDate [database online]. Available at: http://www.uptodate.com. Last updated: . Accessed

6. Bottom line recommendation or summary of evidence from UpToDate (1-2 sentences)

7. PEPID PCP excerpts
www.pepidonline.com
username: fpinauthor
pw: pepidpcp

8. PEPID citation/access data

Author. Title. In: PEPID [database online]. Available at: http://www.pepidonline.com. Last updated: . Accessed

9. PEPID content updating

1. Do you recommend that PEPID get updated on this topic?
☐ Yes, there is important evidence or recommendations that are missing
☐ No, this topic is current, accurate and up to date.
If yes, which PEPID Topic, Title(s):

2. Is there an EBM Inquiry (HelpDesk Answers and Clinical Inquiries) as indicated by the EB icon ( ) that should be updated on the basis of the review?
☐ Yes, there is important evidence or recommendations that are missing
☐ No, this topic is current, accurate and up to date.
If yes, which Evidence Based Inquiry(HelpDesk Answer or Clinical Inquiry), Title(s):

10. Other excerpts (USPSTF; other guidelines; etc.)

11. Citations for other excerpts

12. Bottom line recommendation or summary of evidence from Other Sources (1-2 sentences)

I looked at Dynamed, Up To Date and USPSTF guideline on smoking cessation and found no recommendation regarding abrupt vs. gradual cessation.

SECTION 4: Conclusions
[to be completed by the Potential PURL Reviewer]
[to be revised by the Pending PURL Reviewer as needed]

1. Validity: How well does the study minimize sources of internal bias and maximize internal validity?

Give one number on a scale of 1 to 7
(1=extremely well; 4=neutral; 7=extremely poorly)
☒1 ☐2 ☐3 ☐4 ☐5 ☐6 ☐7

2. If 4.1 was coded as 4, 5, 6, or 7, please describe the potential bias and how it could affect the study results. Specifically, what is the likely direction in which potential sources of internal bias might affect the results?

3. Relevance: Are the results of this study generalizable to and relevant to the health care

Give one number on a scale of 1 to 7
(1=extremely well; 4=neutral; 7=extremely poorly)
☐1 ☒2 ☐3 ☐4 ☐5 ☐6 ☐7

needs of patients cared for by "full scope" family physicians?

4. If 4.3 was coded as 4, 5, 6, or 7, lease provide an explanation.

5. Practice changing potential: If the findings of the study are both valid and relevant, does the practice that would be based on these findings represent a change from current practice?

Give one number on a scale of 1 to 7
(1=definitely a change from current practice; 4=uncertain; 7=definitely not a change from current practice)
☐1 ☐2 ☒3 ☐4 ☐5 ☐6 ☐7

6. If 4.5 was coded as 1, 2, 3, or 4, please describe the potential new practice recommendation. Please be specific about what should be done, the target patient population and the expected benefit.

There is no mention of how to advise a person to quit smoking in uptodate, dynamed or USPSTF recs.

7. Applicability to a Family Medical Care Setting: Is the change in practice recommendation something that could be done in a medical care setting by a family physician (office, hospital, nursing home, etc), such as a prescribing a medication, vitamin or herbal remedy; performing or ordering a diagnostic test; performing or referring for a procedure; advising, educating or counseling a patient; or creating a system for implementing an intervention?

Give one number on a scale of 1 to 7
(1=definitely could be done in a medical care setting; 4=uncertain; 7=definitely could not be done in a medical care setting)
☒1 ☐2 ☐3 ☐4 ☐5 ☐6 ☐7

8. If you coded 4.7 as a 4, 5, 6 or 7, please explain.

9. Immediacy of Implementation: Are there major barriers to immediate implementation? Would the cost or the potential for reimbursement prohibit implementation in most family medicine practices? Are there regulatory issues that prohibit implementation? Is the service, device, drug or other essentials available on the market?

Give one number on a scale of 1 to 7
(1=definitely could be immediately applied; 4=uncertain; 7=definitely could not be immediately applied)
☐1 ☒2 ☐3 ☐4 ☐5 ☐6 ☐7

10. If you coded 4.9 as 4, 5, 6, or 7, please explain why.

Would require additional counseling if a standardized approach to gradual cessation is advised.

11. Clinical meaningful outcomes or patient oriented outcomes: Are the

Give one number on a scale of 1 to 7
(1=definitely clinically meaningful or patient oriented; 4=uncertain; 7=definitely not clinically meaningful or patient oriented)

outcomes measured in the study clinically meaningful or patient oriented?	☒1 ☐2 ☐3 ☐4 ☐5 ☐6 ☐7
12. If you coded 4.11 as a 4, 5, 6, or 7 please explain why.	
13. In your opinion, is this a Pending PURL? Criteria for a Pending PURL: • Valid: Strong internal scientific validity; the findings appears to be true. • Relevant: Relevant to the practice of family medicine • Practice changing: There is a specific identifiable new practice recommendation that is applicable to what family physicians do in medical care settings and seems different than current practice. • Applicability in medical setting: • Immediacy of implementation	Give one number on a scale of 1 to 7 (1=definitely a Pending PURL; 4=uncertain; 7=definitely not a Pending PURL) ☐1 ☒2 ☐3 ☐4 ☐5 ☐6 ☐7
14. Comments on your response in 4.13	We believe this is a PURL due to the lack of advise regarding abrupt v. gradual smoking cessation in reference databases and that for those clinicians that have been promoting the abrupt method, gradual cessation does have merit that could be discussed with the patient to reach a shared decision on strategy.