Transcript

Let’s talk e-cigarettes
Podcast 30, March 2024, Ian Pope

Speaker 2: Nicola Lindson, NL
Speaker 3: Jamie Hartmann-Boyce, JHB
Speaker 4: Ian Pope

Musical intro
If asking your mate down the pub about vaping is what they probably say, no one agrees if it's safer or not, so you might as well smoke anyway. Now what your mate needs is a Cochrane review. All the facts have been checked at least twice. They find there's a lot that the experts agree on and might give you different advice.

Speaker 2
Hi, my name is Nicola and I'm a researcher based at the University of Oxford in the UK.
Speaker 3
And I'm Jamie and I'm a researcher based at the University of Massachusetts Amherst in the United States.
Speaker 2
We are both members of the Cochrane Tobacco Addiction Group. Welcome to this edition of Let's talk E cigarettes. This podcast is a companion to a research project being carried out at the University of Oxford, where every month we research the e-cigarette research literature to find new studies. We then use these studies to update our Cochrane Systematic review of E cigarettes for smoking cessation. This is called a living systematic review. In each episode, we start by going through the studies we've found that month and then go into more detail about a particular study or topic related to E cigarettes.

Speaker 3
This month Nicola and I are coming to you from Edinburgh. We're here for the Society for Research on Nicotine and Tobacco's annual conference, which is just getting started. But when we get back to the topic at hand, when we ran our searches for our review this month, we found three papers that were linked to studies we've already included in our review and one new study which Nicola is going to tell you about in a nutshell.
Speaker 2
Thanks, Jamie. So that one new study came from Dr Bettina Hoeppner and her colleagues at the Department of Psychiatry, Massachusetts General Hospital and Harvard Medical School in the States. This study was published in the European Journal of Psychiatry and funded by the US National Institutes of Health. And the way it worked was that it gave an e-cigarette starter kit to all of the 30 adults who took part and who smoked daily and were also interested in trying an e-cigarette. For this study for our purposes, we were interested because it measured people's carbon monoxide levels at a few points up to three months. Now what they found was that overall there were no clear differences in the levels of carbon monoxide measured between baseline and three months.
Speaker 3

Thanks, Nicola. So, for this month's deep dive. I had the pleasure of interviewing Dr. Ian Pope, an emergency medicine physician and honorary associate professor at Norwich Medical School, about his new trial, which he co leads with Professor Caitlin Notley from the University of East Anglia. The new trial is called COSTED, which stands for the Cessation of Smoking Trial in the Emergency Department and it's hot off the press this month, funded by the British National Institutes of Health Research. I'll let Ian tell you more about it.
So, starting off, can you tell us about your background and what got you into e-cigarette research?
Speaker 4
Sure. So, I am a medical doctor. I've worked in emergency medicine for the last, quite a lot of years. So, I did a Master of public health when I was at medical school so always had an interest in public health. And then I went on to a Masters in health policy planning and financing after a bit of time in the E.D. and a part of that economic evaluation module and needed to do some sort of model, I had to do an economic evaluation with just made-up data and I decided why not look at smoking cessation in the E.D. had never been done in the UK, but there was some U.S. data. It's of interest to me. It's my two, you know, it's public health and E.D. It sounds perfect, so I then did that module, did the economic valuation. Obviously very cost effective as anything is that helps people to quit smoking. And then I moved to Norwich and I told someone about this. Ohh we do smoking cessation here. Why don't you go and chat to Caitlin. So take Caitlin Notley and I then had a coffee and she's like ohh there's a NHR call so a big funder in the UK were looking to fund, so it was a trial in the NHS doing smoking cessation using e-cigarettes would like perfect. Why don't we propose an e-cigarette trial in ED? It'd never been done in the UK. They've never tried e-cigarettes in the ED setting. Let's have a go. So we then submitted the application, had numerous rounds of reviews and things, and then ended up it got funded. And so that was my journey.
Speaker 3
Yeah. Congratulations. That's awesome. Thanks.
Speaker 4
Thank you. That was my journey into it. So, it is my very much my first trial and my first experience of smoking cessation proper. Definitely my first exposure to e-cigarettes
Speaker 3
Was this big NIHR trial. That's kind of amazing. That's an unusual route. Congratulations. Yeah.
Speaker 4
Yes, thank you very much. Yeah.
Speaker 3
So can you tell us a bit about the study? You know, what you set out to look at, any challenges you might have encountered in getting it off the ground?
Speaker 4
Sure. So the cessation of smoking trial in the emergency department, so a multi centre randomised controlled trial, two groups. So it's based in emergency departments, the six emergency departments around the UK and we were looking at people who came to the emergency department who spoke either patients or accompanying people, they had to smoke at least one cigarette a day. And they couldn't be dual users, so they couldn't be vaping daily. And we kept it that broad. So very few restrictions with the aim of being as generalisable as possible and we kind

of wanted unmotivated quitters. We wanted people who weren't looking to quit and just happened to be in need of something. And we wanted to grab them with the idea being that this was a teachable moment, that they'd be sat there thinking about their health and more likely to be open to it.
Speaker 3
Yeah.
Speaker 4
So yeah, so that was the kind of setting. So intervention was brief advice. We had 15 minutes of brief advice on how to move away from smoking. We intentionally avoided talking about quitting. It was all about switching and moving away from smoking and that sort of language. We tried to link it to their attendance if possible, so if they had a laceration, we talked about wound healing and how moving away from smoking could help their wound to heal. So 15 minutes of that, then 15 minutes of providing them with an e-cigarette starter pack. So we did the starter pack at 11 pods, so about two weeks worth of supplies and then teaching them how to use it to quit smoking and we so we talked to them about flavours, about the strengths, about where to get more supplies, where to go, if they didn't get on with this device and all the other things. And then we also referred them to local stop smoking services. And so the three components were the brief advice, the e-cigarette starter pack and then referral. So that was the intervention.
The control was, so it's meant to be usual care, but we weren't allowed to do quite usual care we had to do something. The usual care is nothing we don't get smoking cessation in the ED. But the funder didn't like that. So we gave them a leaflet about local stop smoking services. But as something to bear in mind is as well as the leaflet they also had a CO test to check they were able to join and obviously lots of questions about their smoking, and then they also got texts to ask if they were still smoking. And actually from our qualitative work we know that that was quite a dose of intervention. Actually lots of controls ended up quitting because of all that dose of intervention that we weren't intending to be an intervention, but just is in its very nature and intervention, and so the outcome was the six month biochemically verified continuous abstinence, and we used CO verification and that proved to be much harder than we thought because of the nature of the population of people who smoke and people who come to ED really hard to reach and so really difficult to get back for their CO tests. So we worked really hard, but not me and the team at the trials unit worked incredibly hard to contact people, to try to arrange their CO, but really difficult. So our biochemical verification rates was much lower than we would thinking just because of difficulty contacting.
Speaker 3
Interesting. And were there, like, unique challenges about conducting a study like this in the emergency department? What are the special considerations in the space that you work in?
Speaker 4
Good question. So the the funder and ethics both very much thought that they thought patients aren't going to engage everyone's too ill in the emergency department, they can't. You can't possibly do this in the ED. But actually we showed that wasn't the case. We recruited quicker than planned we. Closed earlier than planned, the recruitment went really well. So actually, ED worked really well because there are so many people there. So there are so many potentials.
Speaker 3
Fantastic. Yeah. And a lot of them are presumably waiting right.

Speaker 4
Yeah, for hours exactly.
Speaker 3
From the moments that I've spent in the emergency department, which fortunately haven't been for like, critically time sensitive things, I've been there for a long time. Yeah, yeah, yeah.
Speaker 4
Exactly. And they're bored. And then sat thinking about their health. Yeah. And so they're and they're on uncomfortable chairs. So they are just waiting for something to distract them. And then suddenly someone appears. So the challenges of ED were space. So physical space to deliver the intervention. That was always a difficulty. Screening. So we had to just basically go round the waiting room and saying.
Do you smoke? Do you smoke? Do you smoke? And then then also disturbing the flow of the intervention. So we'd get halfway through, and then they'd get called to have their bloods done or to see the doctor, and then we'd have to track them down afterwards to finish the intervention. Yeah, the team who delivered it were amazingly flexible, and they did that, you know, they delivered it wherever they had to. They might be outside whilst they're having a cigarette. Yeah, they were there delivering the intervention, though. I think space and needing to be flexible with the big challenges. Yeah, everything else. It worked remarkably well.
Speaker 3
And in terms of like who presents to an emergency department, is it a different group of people than might be presenting to an intervention like this in primary care, for example?
Speaker 4
I think so. So based on our data, I think we did manage to reach that kind of underserved group. So we got lots of people who are unemployed or unable to work due to ill health. Lots of people from poor 20. So the more deprived deciles and lots of people who work. And so they don't access their GP because they work. And so actually ED where they go instead and young men who never go to their GP but will come to an ED.
Speaker 3
Cause it's open. Yeah, yeah, yeah.
Speaker 4
When they've broken their ankle or whatever. So yeah. So I think it is a slightly different population and obviously for the inclusion health group. So people experiencing homelessness, they often present to the Ed. And so yeah, you get lots of access to them as well.
Speaker 3
Sounds like a great place to be giving smoking cessation interventions. So what did you find?
Speaker 4
So very excitingly, we found a positive outcome.
Speaker 3
Ohh congratulations.
Speaker 4
Thank you very much. So so first we recruited very quickly. So 1000 participants in eight months.
Speaker 3
Amazing.

Speaker 4
Based it on a year's recruitment and we didn't need all that time, so we managed to close early. Yeah, the recruitment went really well. Lots, about 50%, of people who were current smokers in the ED agreed to take part. We had about 50% conversion rate. We did manage to reach underserved group. So 28% unemployed or unable to work due to ill health, 28% in Core 20. So there's two most deprived deciles and 66% in the more deprived half of neighbourhoods. And yes, it worked. It was effective. So biochemically verified rate of 7.2% in the intervention group 4.1% in the control with a relative risk of 1.76 it was statistically significant, so really exciting. So those those who received the intervention were 76% more likely to quit compared to control biochemically verified self reported, which I think is the truth is probably somewhere between the biochemically verified and the self reported, but the self reported rates were really exciting. So 23.2% in the intervention group. So 1/4 of the intervention group said they'd quit at six months and 12.9% of the controls, so relative risk of 1.8. So again really significant difference and really exciting and we we're not expecting quit rates of over a quarter and that's definitely not what we're expecting. So it was really exciting.
Speaker 3
No, no, I can imagine. Amazing.
Speaker 4
And that also those who received the interventions were lower number of cigarettes smoking. And more quit attempts. That was really exciting. So a surprising finding was very few people who received the intervention, who were then referred to stop smoking service, went on to engage with stop smoking service, had about 3% of those referred, went on to have any actual engagement, which is extraordinary. Given this is a core part of lots of interventions, is referring actually this isn't converting. And we're looking to publish that data. Yeah. To support that conversation.
Speaker 3
And did you do some qualitative work around it? What did? What were participants experiences of the intervention? What were their thoughts?
Speaker 4
Yeah, really interesting. So the post evaluation led by Professor Caitlin Notley, who Co led the trial with me, a big theme was right time, right place, patient setting. Talking about sitting there. They're bored. They're thinking about the health cause something's gone wrong and and actually then someone appears and gives them an opportunity to do something and relieve the boredom and also improve their health. Win, win.
Speaker 3
Yeah.
Speaker 4
So yeah, all of those concerns that people had that they wouldn't be able to engage with it just weren't born out. Actually, people were really positive. There was also quite a lot of those. We reached those who had no interest in quitting initially. So they hadn't. They weren't planning a quit attempt. They thought they were lifelong smokers pretty much. And then suddenly and lots of misunderstanding about E-cigarette harms as there is and actually correcting that was one of the big things that then allowed them to quit because they were then able to start using e-cigarettes. We gave it to them and said, why did it go and try it now you can go outside, you need, you know, you're bursting for a cigarette. Why did you go and try this instead?

And that that immediate ability, that opportunity that we presented with them was really well received. There was lots of some, quite a lot of snowballing. So people received the intervention and went home and talked to their family and friends about receiving the intervention and correcting the misinformation around e-cigarettes versus cigarettes. Yeah, really exciting that we, yeah, quite a lot of people not in the trial ended up quitting as a result of the trial.
Speaker 3
Ohh, what a fantastic outcome. As trialists you guys must be over the moon, yeah?
Speaker 4
Yeah. So really, yeah. Really positive. Really. Yeah. Incredibly pleased. Yeah, it's great.
Speaker 3
That's just so wonderful. And I think particularly when it's in these populations who aren't planning to quit smoking to then come out at the end of a trial and have a significant number have quit is really major. So that's thrilling. Yeah. What would you say are the next steps in terms of e-cigarette research following your study and more broadly, do you have any plans? Is there anything you'd like to see done?
Speaker 4
Yeah. Yes, lots of plans. How many will come to fruition we'll see. But yes. So I think implementation that ED think that's a big next step. So I'm working with lots of areas and lots of people are interested in implementing particularly with swap to stop actually it's this amazing opportunity to implement. So yeah, so work with lots of areas. So hopefully we'll get it implemented.
Speaker 3
Yeah.
Speaker 4
And based on some modelling I've done, if the large ED's in England implement it, we'd get about 23,000 extra quits a year.
Speaker 3
Oh my. Gosh.
Speaker 4
If it was properly staffed, so that was really exciting.
Speaker 3
Really exciting.
Speaker 4
Other research I'm interested in is pre-op smoking cessation using E cigarettes. It's probably not been done and I think is a really interesting all using cytisine. I think they're both really interesting, a universal offering in primary care, so contacting people so a similar sort of model, identifying people via GP records because GP's have actually quite good data on how many.
Speaker
Mm-hmm. Yeah.
Speaker 4
People smoke and who they are, so contacting them via that. That and then probably giving them a choice of E cigarettes, NRT or cytisine and then yes, and be a trial around that. And then the big one is e-cigarette risk. And what are the impacts on health? So Caitlin and I are looking at this study investigating the risks of e-cigarettes in never smokers.
Speaker 1
Hmm.

Speaker 3
Fantastic.
Speaker 4
So specifically looking at those who have never, never spoke but are daily e-cigarette users and identifying those through the Our Future Health cohort. So Our Future Health is planning to trigger 5 million people representative sample for the UK. They have lots of people already who are have never smoked, but a current e-cigarette users. So and they already have a blood sample for them, so we can do biomarker monitoring, measuring and then follow them up and see what their health outcomes are. But all of those need funding.
Speaker 3
Fabulous all of these studies need funding and all need doing, so I hope that they get funded. Is there anything else you'd like to add?
Speaker 4
Yeah. Thank you. No, I don't think so. I think we have covered, yeah, all the highlights.
Speaker 3
Well this has been very exciting for me cause usually I have seen the results in the paper before I review the person, but in this case I haven't, so it was thrilling to learn it in real time as well. Thank you.
Speaker 4
Excellent.
Speaker 3
So much.
Speaker 4
Thank you so much.
Speaker 2
Well, we've been waiting for that study for a long time, Jamie. As we know and it takes a long time to carry out these trials and then get them through the publishing process. But it's absolutely great to see it and really interesting to see this study being carried out in this particular setting. So in the emergency medicine setting and obviously. Going to an emergency department, A&E can be very stressful for the people who are there and I've found it so interesting that you know people were still receptive to. This intervention and really interested in taking part in it and then also to see such favourable results is really exciting.
Speaker 3
Absolutely. It's a really well conducted trial and really encouraging to see it out there and we look forward to seeing how it's received. So that's it from us this month. We're going to get back to our conferencing. And our exploration of this wonderful city in Scotland. Thanks so much for listening. Thank you to Ian Pope for coming on as our interviewee this month and we look forward to speaking to you again on next month's episode.
Please subscribe on iTunes or Spotify and stay tuned for. Our next episode.

Musical outro
Vaping is safer than smoking may help you quit in the end. But remember to mention the findings we have can't tell us what will happen long term, even though we know vaping is safer than smoking, we may still find cause for concern, if you're thinking about switching to vaping do it. That's what the experts agree. Smoking so bad for

you they all concur that vaping beats burning there's much to learn of effect long term yet to be seen.
Speaker 3
Thank you to Jonathan Livingstone-Banks for running searches to Ailsa Butler for producing this podcast and to all of you for tuning. In music is written with Jonny Berliner and I and performed by Johnny. Our living systematic review is supported by funding from Cancer Research UK. The views expressed in this podcast are those of Nicola and I and do not represent those of the funders.

Speaker 1
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