

Ontario Long Term Care Clinicians Conference

Supporting Safe Smoking Cessation
for residents in Isolation due to
COVID -19

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Baycrest



Faculty/Presenter Disclosure

- **Faculty:** Marilyn White-Campbell
- **Relationships with financial sponsors:**
 - **Grants/Research Support:** Health Canada (Substance Use & Addiction Program) for National Best Practise Geriatric Addictions Project.
 - CHIR grant “Opiates and Older Adults; A spotlight on the Opioid Crisis among seniors”
 - SUAP Health Canada Cannabis Micro Grant : Cannabis and Older Adults Know the Facts
 - Canadian Mental Health Commission : *Understanding the Link between Cannabis Use and Mental Health: A Focus on the Experiences of Older Adults*”
 - **Support from CAMH :** donation of Nicotine Spray
 - **Speakers Bureau/Honoraria:** Honoraria for Guidelines
 - **Consulting Fees:** none .
 - **Patents:** none
 - **Other:** Employee of Baycrest
 - Mitigating Potential Bias: **None**

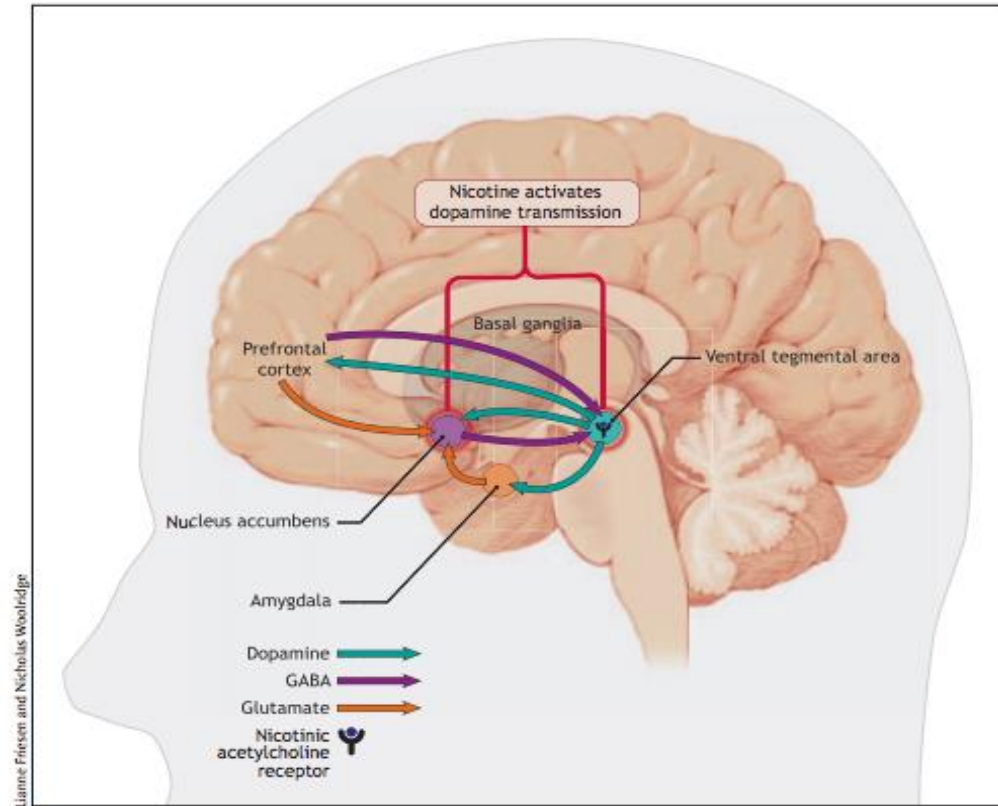


Learning Objectives

1. To have an understanding of nicotine dependence
2. To explore options for NRT for management of Nicotine withdrawal and ensure resident comfort
3. To discuss the ethics of enforcing no smoking during COVID-19

Nicotine's Addictive Potential

- Short half life
- Rapid route of delivery (inhalation = reaches brain very quick)
- Considered one of the most addictive substances



Lianna Fjersen and Nicholas Woolridge

Figure 1: Areas in the brain involved in nicotine addiction. Nicotine stimulates nicotinic acetylcholine receptors located in the ventral tegmental area, which leads to the release of dopamine in the nucleus accumbens, an important step in the process of nicotine addiction. Neurons projecting from the prefrontal cortex and amygdala modulate the release of dopamine in the nucleus accumbens, which allows for control of these addictive behaviours. These regulatory pathways are comprised of glutamate and gamma-aminobutyric acid (GABA) neurons.

Cigarettes

- Smoking a drug = injecting a drug
- Highly potent: just 1 mg of nicotine does the trick
- Nicotine has a very short half life: 120 minutes
- Its addictive effects are similar to cocaine, heroin and amphetamines

Myth

Nicotine replacement therapy is hazardous for smokers.

Medical Reality

- *Nicotine replacement therapy is safe for smokers.*
- NRT provides nicotine to the smoker without the dangerous toxins that are present in cigarettes and cigarette smoke. These toxins, **not nicotine**, are responsible for the vast majority of smoking-caused disease.
- **NRT is considered a “clean” nicotine delivery system and is safe for smokers.**

Myth

- *Smoking while using NRT causes heart attacks.*

Medical Reality

- *Use of NRT while smoking does not increase cardiovascular risk.*
- Smokers are already at high risk for cardiovascular events.
- Smoking causes serious cardiovascular effects, such as atherosclerosis, acute myocardial infarction, stroke, and sudden death.

What's in a Cigarette?

www.GreenTidings.org ~ www.facebook.com/GreenTidings

Acetone (harsh solvent)
Urea (urine)
Wheat extract and flour
Cyanhydric Acid* (was used in gas chambers)
Naphtylamine*
Tar (70% of which is deposited into the smoker's lungs)
Stearic Acid
Butane* (lighter fluid)
Benzene* (used to make gasoline, detergents, pesticides)
Ammonia
Methane
Methoprene* (flea-killer)
Benzopyrene* (found in coal tar. Potent carcinogen)
Formaldehyde*
Turpentine* (paint stripper)
Propylene Glycol



Menthanol (used as rocket fuel)
Pyrene*
Urethane*
Toulene (industrial solvent)
Arsenic* (lethal poison)
Naphtalene* (moth repellent)
Nicotene (insecticide/herbicide)
Cadmium* (used in batteries)
Lead
Dibenzacridine*
Polonium 210* (radioactive element)
Carbon Monoxide (gas fumes)
Vinyl Chloride* (used in plastics)
DDT* (insecticide)

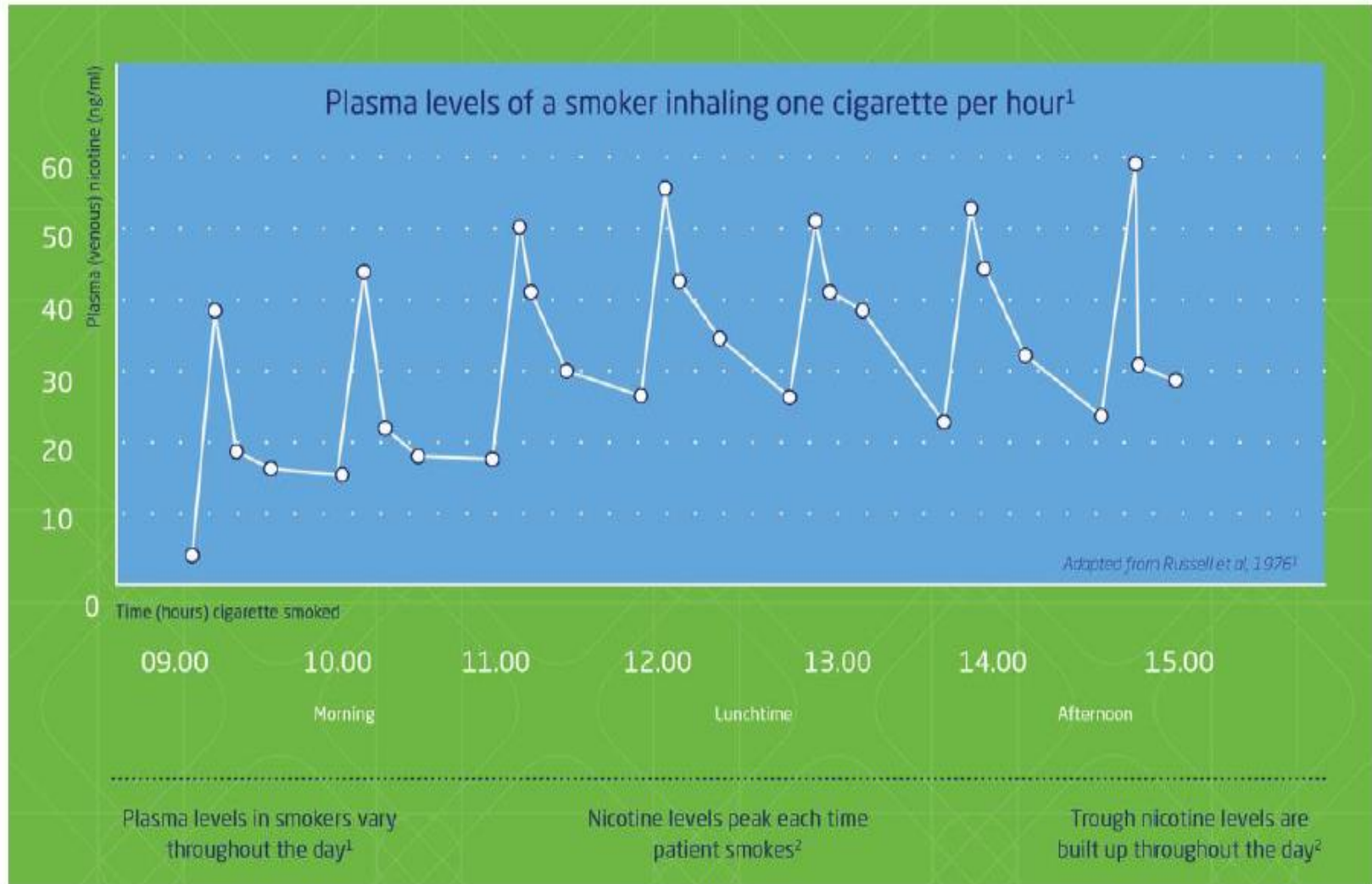
Did you know?

**There are over 4,000 chemicals
in tobacco smoke and at least
81 of those chemicals are
known to cause cancer.**

*Known carcinogen (cancer-causing)

~This list is only a very short list of cigarette ingredients.
For a full list, see Wikipedia's List of additives in cigarettes

Nicotine in the Body – Self-Titrating Levels



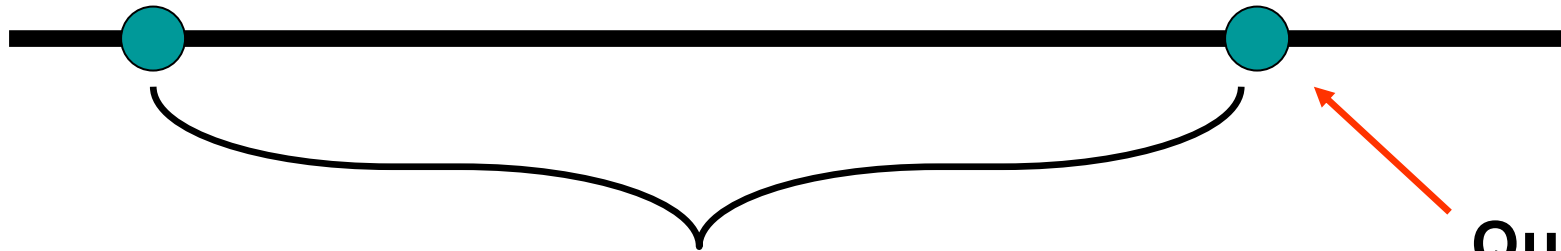
Quitting is a process

Pack a day smoker: Approximately 110,000 hand to mouth repetitions/year

40 years of smoking

AGE 13

AGE 53



25 cigarettes/day x 40 years

= 365,000 cigarettes

= 4,380,000 hand to mouth repetitions

Quit attempt



Covid Considerations

- Is the home on outbreak
- Is the resident positive for Covid
- Does the resident smoke safely and practice proper hand hygiene?
- Does the resident smoke other substances?
- Does the resident share cigarettes?
- Is the resident likely to pick up others cigarette butts and attempt to smoke it?
- Is there a need to use key pad pass codes to go in and out of the home?

Respecting resident rights and compassion in care

- Smoking cessation during COVID-19 is not an easy choice for administrators to make.
- Smoking cessation protocols to ensure compassion in care and comfort of the resident with considerations for reduced risk and safety in long term care homes.

Case Study Mr C

- 74 year old male
- Hx schizophrenia, ASPD,
- mobile
- Covid positive
- Smoking 20 to 30 CPD
- Demands cigarettes
- Combative
- Refuses to stay in room
- Non compliant use of mask
- Poor hand hygiene
- Leaves the floor to smoke up to 15 times a day

What would you do?

- Call police to charge him under quarantine act?
- Take away his cigarettes?
- Tell him to stay in his room and provide NRT?

Solutions

What didn't work

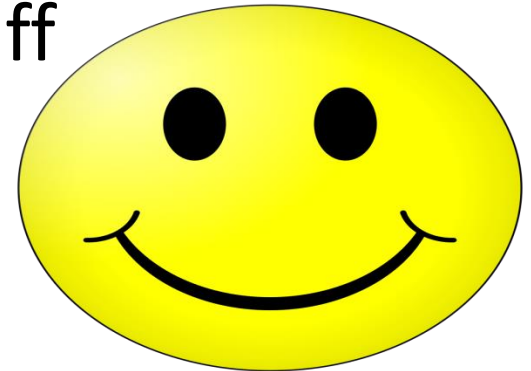
- 21 mg patch
- Side effects irritation on the patch site
- Resident removed it to smoke
- NOT ENOUGH NICOTINE!

What did work

- OTN with resident
- demo of different NRT long acting and short acting
Resident choice Short acting Spray

Outcomes

- Resident behaviours decreased
- Not leaving room
- Independent use of NRT spray
- Not smoking
- Resident is calm and happy
- Improved relationships with staff



Important Points about NRT

NRT can be used even if there is **no** long-term goal to quit smoking

Can use in those who are not ready or able to quit.

Can be used to reduce smoking and to reduce smoking related agitation / behaviours (by stabilizing serum nicotine levels).



Behavioural
Supports
Ontario

Baycrest

Drugs to Monitor After the Quit

Psychotropics –
clozapine, olanzapine,
haloperidol, fluvoxamine

Caffeine

Hypoglycemic agents

Warfarin – unpredictable
effects on INR

Smoking cessation and β -cell
function

170:2 219-227

Effects of smoking cessation on β -cell function, insulin sensitivity, body weight, and appetite

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[European Journal of Endocrinology](#)

Abstract

Objective: To stop smoking is commonly associated with significant weight gain, but the mechanisms for this are poorly understood. We assessed the effects of smoking cessation on body weight, insulin sensitivity, β -cell function, and appetite. **Subjects and methods:** Twenty-seven long-term smokers ($n=27$; nine females/18 males, 28 ± 1 years, 22.9 ± 0.6 kg/m²) attending an ambulatory smoking cessation program in a community hospital in Vienna, Austria were examined at baseline (Visit A; still smoking) and after a minimum of 3 months of smoking abstinence (Visit B; $n=14$); relapsed smokers were not followed up. Participants underwent 3-h oral glucose tolerance tests and body composition measurements at each study visit. Fasting (QUICKI) and dynamic (oral glucose insulin sensitivity (OGIS)) insulin sensitivity and β -cell secretion (insulinogenic index 140 (IGI40)) were calculated. Food intake was quantified with a free choice buffet. Fasting plasma concentrations of neuropeptide-Y (NPY), peptide-YY (PYY), glucagon-like peptide 1 (GLP1), leptin, ghrelin, and visfatin were measured. **Results:** After >3 months' smoking abstinence, body weight and fat mass were increased ($+4$ and $+22\%$ respectively, $P<0.05$) and fasting

Support for treatment of Nicotine Dependence for residents of Long Term Care during the COVID-19 Crisis.

Marilyn White-Campbell May 2020

- **Establish risk for smoking are they able to go out or not** Is the resident smoking safely and alone? y/n
- Is the resident picking up used cigarette butts? y/n **if Yes escalate and initiate NRT**
- Are there behaviours that cause arguments and fights over cigarettes? y/n
- Are the residents sharing cigarettes / smoked cannabis y/n **if yes escalate and initiate NRT**
- Unsafe smokers/ burn marks on clothing and wheelchair/ scooter y/n
- Enforce use of smoking apron & encourage NRT.

If the resident is not able to go out

- 1. Offer NRT whether or not the resident is planning to quit or if they have the following;**
 - Cold cough present (unable to use PPE)
 - Active Covid pt. offer patch immediately based on # cigarettes per day (CPD)
 - Isolation due to Covid
 - Floor on isolation due to other illness
- 2. To ensure social distancing tape off areas to indicate 3 meter distance**
- 3. Keep a bottle of quick mist nicotine spray in each nursing station. Use as needed if a resident is agitated and is not consolable or unable to go outside to Once the canister is opened do not share it with other residents. (see instructions below)**

Supporting Nicotine Dependence for Long Term Care Residents during COVID-19

5. Use the Fagerstrom Nicotine dependence scale to determine level of nicotine dependence
6. Use of NRT using CAMH Algorithm *** *note that Motivational interviewing may not yield a positive response. However during Quarantine, abstinence from smoking will be mandatory. Let the resident know that they don't have a choice for a period of time. Do this compassionately. Remind them that this is not a permanent situation.*
7. Consideration for prescription medication to help with smoking cessation is important ask primary care about appropriateness of Varenicline or Bupropion.

Screening / treatment approach

5. Use the Faggerstom Nicotine dependence scale to determine level of nicotine dependence
6. Use of NRT using CAMH Algorithm *** *note that Motivational interviewing may not yield a positive response. However during Quarantine, abstinence from smoking will be mandatory. Let the resident know that they don't have a choice for a period of time. Do this compassionately. Remind them that this is not a permanent situation.*
7. Consideration for prescription medication to help with smoking cessation is important ask primary care about appropriateness of Varenicline or Bupropion.

Smoking Environment

- Closed / fenced in area or approved ventilated room
- Tape off three meters on the ground in colored tape for physical distancing
- Use of closed ashtrays for safe disposal of cigarette butts or clean the area regularly for those who throw butts on the ground.
- Watch for residents who may extinguish half cigarettes and storing them in their pockets to reduce the risk of fire.
- Ask residents not to share cigarettes and lighters.

Resident Safety Precautions

- Ask resident to clean hands and lighters upon entering the facility
- **Post signs** at the door and in the smoking areas to remind residents the risks of COVID-19
 - Make sure your hands are clean before you smoke
 - Keep 6 feet between you and the next person
 - DUE TO THE HIGH RISK OF DISEASE TRANSMISSION DO NOT SHARE CIGARETTES or OTHER SMOKED OR VAPED PRODUCTS
 - Extinguish and place your cigarette butts in the ashtray
 - DO NOT Share lighters clean them before and after using.

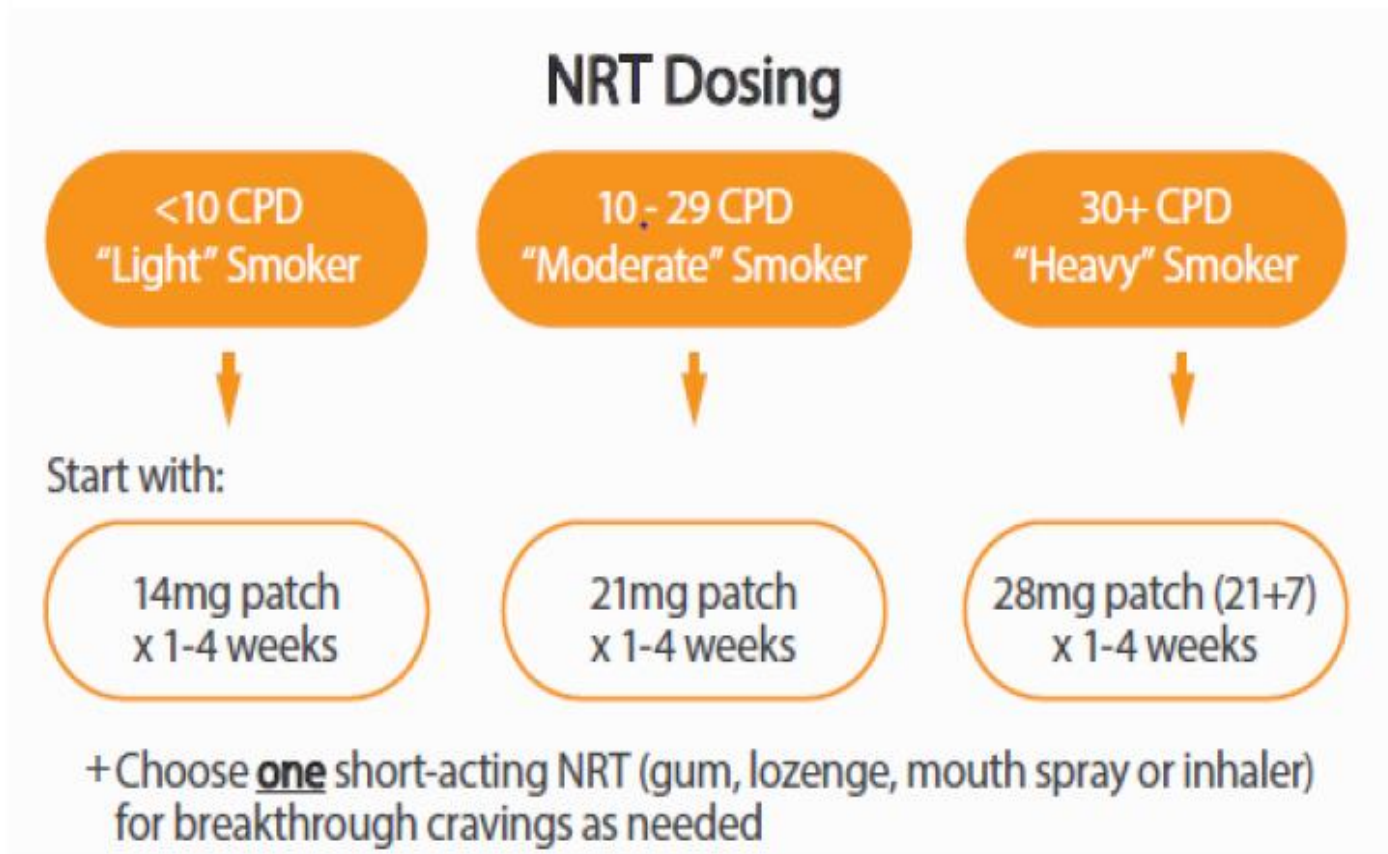
Combination Therapy

Combining counselling and smoking cessation medication is more effective than either treatment alone; therefore both should be provided where appropriate. Use OTN e-visits for residents to receive support during this time. Contact MWhite-Campbell@baycrest.org

Extremely Heavy smokers: Combination therapy may be necessary

A resident that is smoking that consumes over one pack of cigarettes per day may need combination therapy which can be the patch and some other form of NRT such as nicotine lozenges, or the nicotine inhaler, or nicotine gum or nicotine spray and counselling. Some residents will need more than one patch.

NRT DOSING CAMH



NRT & COGNITIVELY IMPAIRED

cognitively impaired

One of the goal of smoking cessation is to ensure the resident is not in withdrawal from nicotine. Ensure that the residents' serum nicotine levels are kept at similar levels when they were actively smoking. Therefore a 15 cigarette a day smoker will need nicotine replacement to achieve those levels.

Tip: if a resident is asking for a cigarette let them know you are going to help them out. Use nicotine spray into the mouth. Ask the resident to wait for a few minutes (some people may feel dizzy) ask them how they feel. The nicotine spray takes between 30 seconds to two minutes to enter the blood stream. It is the quickest way to reduce cravings for nicotine. The side effects are tingling to the mouth and lips and sometimes hiccups.

Considerations for Consent and Capacity

- Is the resident able to understand and appreciate ?
- Do they have the neuropsychological capacity to make an informed decision ?
- What are the risks of an incompetent refusal?
- Individual rights vs rights of all LTCH residents

Resources

BSO Nicotine Tip sheet Supporting Safer Smoking Cessation for Residents in LTCH during COVID-19

- [https://torontocentral.behaviouralsupportsontario.ca/352/COVID-19 Resources - Older Adults and Behaviours/](https://torontocentral.behaviouralsupportsontario.ca/352/COVID-19%20Resources%20-%20Older%20Adults%20and%20Behaviours/)

Algorithm for tailoring for pharmacotherapy for nicotine dependence

- <https://www.nicotinedependenceclinic.com/en/teach/Documents/Pharmacotherapy%20Algorithm%20JAN2018%20updated.pdf>
- Geriatric Addiction rounds May 2020
- https://zoom.us/rec/play/j6hQBnwouBeeRuPC_qEpDIaf1r9W3Vj0YFqjDPdCMM2NOQnqyYjKkGEqEGZgtZ5LSivtPMpUtW_DnJwW.kVDvL4hAw1h87hcT?startTime=1589298892000&xzmrtaid=OBQ9uhbQTm2WJWxl82RIbQ.1602816312049.9d2fccdad18bd436816aac0643e02282&xzmrtaid=508

Resources

- Geriatric Addiction rounds
- https://zoom.us/rec/play/j6hQBnwouBeeRuPC_qEpDIaf1r9W3Vj0YFqjDPdCMM2NOQnqyYjKkGEqEGZgtZ5LSivtPMpUtW_DnJwW.kVDvL4hAw1h87hcT?startTime=1589298892000&xzm_rtaid=OBQ9uhbQTm2WJWxl82RlbQ.1602816312049.9d2fccdad18bd436816aac0643e02282&xzm_rhtaid=508

References

OMA Position Paper Rethinking Stop-Smoking Medications: Treatment Myths and Medical Realities (January 2008)

Disease Interrupted a Clinical Guide to Tobacco Reduction and Cessation 2nd edition

Els, C., Kunyk, D. Selby, P. 2017

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