Tobacco Use Disorder Treatment

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65-year-old-female with COPD, CAD, hypertension and tobacco use disorder presents requesting help with smoking cessation.

She has tried to stop cold-turkey and tried a nicotine patch without any success.

What is the best treatment approach for this patient requesting help with smoking cessation?

A few brief points on epidemiology for Tobacco use disorder (TUD)

- Cigarette smoking has decreased to below 10% in 2024, however use of tobacco products remains stable at ~ 18-19%
- Significant disparities exist with highest rates in Alaskan and Native Americans, persons with severe mental health disease, and persons with disabilities.
- E-cigarette or vaping is highest in adults 18-24
- Menthol cigarettes are highest in non-hispanic Black Americans

Treatment of TUD

- First line therapy includes both pharmacotherapy and behavioral counseling/modification
- USPSTF grade A recommendation for both pharmacotherapy and behavioral modification/counseling/intervention
- Combination of pharmacotherapy and behavioral counseling results in highest quit rates
- Combination has higher quit rates than either approach alone (15.2% vs 8.6% at 6 months, RR 1.83)

FDA approved medications

- **Nicotine replacement therapy (NRT)**: patch, gum, lozenge, inhaler, and nasal spray. (16.9% vs. 13.9% (vs. single NRT))#
  - Combination NRT is more effective than single form NRT (comes close in efficacy to varenicline monotherapy)
- **Varenicline**: (25.6% vs. 11.1%)* Most effective single agent; partial agonist of the α4β2 nicotinic receptor; American Thoracic Society strongly recommends varenicline over bupropion and NRT.
- **Bupropion SR:** (19.0% vs. 11.0%)* inhibits dopamine/norepinephrine reuptake and partially blocks nicotinic receptors. Would be a good choice for treatment of co-occurring depression

(Quit rates of drug vs placebo at 6 months: # CNRT vs monotherapy, * drug vs placebo)

Behavioral Interventions

Evidence-based behavioral interventions include:

- 1) individual and group counseling (NicA (Nicotine Anonymous), online support groups, CBT-based groups
- 2) telephone counseling such as that received through state quitlines (1-800-QUIT-NOW)
- 3) web- and text-based interventions
- 4) mobile apps
- 5) organizational interventions such as smoke-free zones/smoke- free workplace

Our 65 yo patient…

- Initiate varenicline, standard dosing: 0.5mg daily for 3 days, then increase to 0.5mg twice daily for 4 days, and then increase to 1mg twice daily for 12 weeks; can extend up to 6 months as needed
- Initiate nicotine patch plus nicotine lozenges as needed every 2 hours for cravings
- Enroll her in your clinic's smoking cessation support group that is facilitated by a behavioral health counselor
- Schedule a telemedicine follow up in 1-4 weeks to assess for efficacy and any side effects
- Nausea is the most common side effect; recommend taking after eating with a full glass of water

She said her son told her that she should try e-cigarettes/vaping

- For our patient, it is definitively **not** recommended for smoking cessation in patients with COPD (GOLD 2026)
- Not formally recommended in US by any organization
- It *is* recommended in the UK/Europe for smoking cessation
- A landmark RCT published in NEJM demonstrated a 1-year abstinence rate of **18.0% with e-cigarettes vs. 9.9% with NRT** (RR 1.83, 95% CI 1.30–2.58).
- More studies emerging that may support use of e-cigarettes/vapes smoking cessation
- A notable concern is that many participants who quit smoking with e-cigs **continued vaping long-term** — 45–80% were still using e-cigs at 6–12 months, compared to 9–40% still using NRT.