Algorithm for Tailoring Pharmacotherapy in Primary Care Setting

**ASK:** About tobacco use. How many cigarettes do you smoke a day? (Large pack = 25, Small pack = 20).

**ADVISE:** Your patient to quit.
As your healthcare provider, I am concerned about your tobacco use and advise you to quit. Would you mind if we spent a few minutes so that I can better understand your smoking addiction?

If **YES**: Assess readiness  
If **NO**: If you change your mind, I am willing to discuss this further

**ASSESS:** Readiness to quit.
1. Given everything going on in your life right now, how important is it for you to quit smoking?  
2. How confident are you that you can quit smoking? Scale each question 0-10.

**ASSIST:**
- Cold Turkey: Supportive counseling, arrange follow-up
- Reduce to Quit: See reverse
- Pharmacotherapy +/- Counseling: If patient smokes ≥ 10 cigarettes/day, offer pharmacotherapy

**First line pharmacotherapy**

- **Bupropion (Wellbutrin SR®, Zyban®)**
  - Dose: 150mg SR PO qam X 3 d then BID 7-12 weeks  
  - Quit date: 7-14 days after starting  
  - Contraindicated: Seizure disorders, bulimia/anorexia (recent or remote), liver failure MACI  
  - Common side effects: Dry mouth, constipation, agitation, insomnia, headache, tremor  
  - Caution: Seizures, mood changes, suicide, drug interactions  
  - Advantages: Minimal weight gain, helps depression, can use with NRT, as effective as NRT

- **Varenicline (Champix®)**
  - Dose: 0.5 mg PO OD x 3 d then BID, can increase to 1mg BID at 7 d x 12-24 weeks  
  - Quit date: 7-14 days (up to 35) after starting  
  - Contraindicated: Unstable psychiatric illness  
  - Common side effects: Nausea, bad dreams, insomnia  
  - Caution: Serious neuropsychiatric events (may be worsened by smoking or alcohol), risk of increased cardiac events in patients with heart disease, Stevens-Johnson, angioedema, erythema multiforme, reduce dose in renal disease, avoid driving/machinery if sedated  
  - Advantages: No drug interactions except NRT (may increase adverse events), most effective medication quit rate is triple placebo

While varenicline has the highest quit rate, therapy should be tailored to the individual’s needs and preferences

**ARRANGE:** Follow up 4 weeks post quit date.
- Partial response: Assess medication adherence  
  - Adjust dose  
  - Increase counseling  
- Full response: Maintenance  
- Modify pharmacotherapy  
- Combination Therapy

- **Nicotine Replacement Therapy (NRT) OTC**
  - Delivery: Transdermal (patch), Oral mucosa (gum, lozenge), Oropharynx (inhaler)  
  - Dose:  
    - Patch: Different doses are tapped down over 12 weeks  
    - Inhaler: Cartridge =10mg nicotine + 1 mg menthol, puff PRN, max 12/d  
    - Gum: 2mg (< 25 cigarettes/day) and 4 mg (> 25 cigarettes/day) max 20/d  
    - Lozenges: Nicorette® (2.4 mg) Thera® (1.2 mg) max 20/d  
  - Quit Date: Same day as starting NRT  
  - How to use: Patch: apply to non-hairy area for 16 or 24 hours  
  - Gum, lozenge: Chew/suck slowly until taste is strong then place between cheek and gum, wait till fades then repeat  
  - Inhaler: Insert cartridge into cylinder and draw-in (most ends up in oropharynx)

- Contraindicated: Inhaler: COPD  
- Common side effects:  
  - Patch: Abnormal dreams/insomnia (remove before bed)  
  - Inhaler: Gum, Lozenge: mouth irritation, dyspepsia

- Caution:  
  - Inhaler: Still has nicotine when finished-dispose properly, Patch: Actually OK if smokes, leave patch on and try to quit again
- Advantages: Quit rate is double placebo, patch is the most effective NRT and is safe in stable cardiac disease

**MOTIVATIONAL INTERVIEWING**
- Explore the 5 R’s using reflective listening:
  - Relevance  
  - Rewards  
  - Risk  
  - Roadblocks  
  - Repetition

**Quit smoking and weight**
- 46% of people will gain an average of 4-10 lbs (up to 30 lbs)
- More cigarettes smoked, more wt gained
- Delays weight gain: Bupropion SR, NRT: 4mg gum/lozenge

**Seizure disorders, bulimia/anorexia (recent or remote), liver failure MACI**

Additional references used to develop this algorithm are listed on the reverse.
Reduce to Quit

Step 1: (0-6 weeks) Smoker sets a target for no. of cigarettes per day to cut down (at least 50% recommended) and a date to achieve it by. Smoker uses gum to manage cravings.

Step 2: (6 weeks up to 6 months) Smoker continues to cut down cigarettes using gum. Goal should be complete stop by 6 months. Smoker should seek advice from HCP if smoking has not stopped within 9 months.

Step 3: (within 9 months) Smoker stops all cigarettes and continues to use gum to relieve cravings.

Step 4: (within 12 months) Smoker cuts down the amount of gum used, then stops gum use completely (within 3 months of stopping smoking).

Glossary

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<thead>
<tr>
<th>Abbreviation</th>
<th>Definition</th>
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<tbody>
<tr>
<td>BID</td>
<td>Twice a day</td>
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<tr>
<td>COPD</td>
<td>Chronic obstructive pulmonary disease</td>
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<tr>
<td>d</td>
<td>Days</td>
</tr>
<tr>
<td>lbs</td>
<td>Pounds</td>
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<tr>
<td>LU</td>
<td>Limited use</td>
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<td>NRT</td>
<td>Nicotine replacement therapy</td>
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<tr>
<td>MAOI</td>
<td>Monoamine oxidase inhibitor</td>
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<tr>
<td>Max</td>
<td>Maximum</td>
</tr>
<tr>
<td>ODB</td>
<td>Ontario drug benefit</td>
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<tr>
<td>OTC</td>
<td>No prescription needed</td>
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<tr>
<td>PO</td>
<td>By mouth</td>
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<tr>
<td>PRN</td>
<td>As needed</td>
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<tr>
<td>qam</td>
<td>Every morning</td>
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<tr>
<td>R</td>
<td>Requires a prescription</td>
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<td>SR</td>
<td>Slow release</td>
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<tr>
<td>Wt</td>
<td>Weight</td>
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References

Information provided is evidence-based but may not be approved for use in certain regions. Refer to your local regulatory authority for approved indication, guidelines, and updated safety information.


4. CAN-ADAPTT. Canadian Smoking Cessation Clinical Practice Guideline. Toronto: Canadian Action Network for the Advancement, Dissemination and Adoption of Practice-informed Tobacco Treatment, Centre for Addiction and Mental Health; 2011.

5. CAN-ADAPTT. Canadian Smoking Cessation Clinical Practice Guideline: Pharmacotherapy section. Toronto: Canadian Action Network for the Advancement, Dissemination and Adoption of Practice-informed Tobacco Treatment, Centre for Addiction and Mental Health; 2012.