This practice algorithm has been specifically developed for MD Anderson using a multidisciplinary approach and taking into consideration circumstances particular to MD Anderson, including the following: MD Anderson’s specific patient population; MD Anderson’s services and structure; and MD Anderson’s clinical information. Moreover, this algorithm is not intended to replace the independent medical or professional judgment of physicians or other health care providers.

**Tobacco Cessation Algorithm - Adult**

**INITIAL EVALUATION**

- Screen current tobacco use status

**STATUS**

- Has patient smoked or used tobacco in the last 30 days? Yes
  - Has patient smoked more than 100 cigarettes in lifetime? Yes
    - Encourage patient to remain tobacco-free
    - Reassess each visit at 30 days intervals
  - Has patient smoked more than 100 cigarettes in lifetime? No
    - No
- No

**MANAGEMENT**

- Refer patient to a tobacco treatment program (preferred)
  - Yes
  - See page 2
  - No
  - Patient interested?
    - Yes
    - Offer to send education about tobacco cessation:
      - Pharmacotherapy and counseling
      - Quit line (1-800-QUIT-NOW)
    - No
    - Option 1
      - Offer referral to a telephone-only tobacco treatment program. If patient not interested, see Option 2 below.
      - Option 2
        - Engage patient in a motivational dialog about smoking cessation
        - Review risks of smoking and benefits of quitting
        - Provide patient education resources
        - Assess and address barriers and concerns of patient
        - Consider reducing cigarettes per day using Nicotine Replacement Therapy (NRT) or medications with a goal of cessation in the near future
      - Reassess at each visit

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1 If patient has not smoked in the past 7 days, treatment may not be required
2 Refer to Appendix A for Tobacco History Assessment
3 The Tobacco Treatment Program provides both outpatient and inpatient services
4 Refer to Appendix B for Medication Options
5 Refer to Appendix C for Nicotine Replacement Therapy (NRT)

Department of Clinical Effectiveness V2
Approved by the Executive Committee of the Medical Staff on 12/12/2017
Components of an effective Tobacco Treatment Plan includes behavioral therapy\(^1\) with pharmacotherapy:

- **1st line medication options**\(^2\)
  - Varenicline (most effective single agent)
  - Bupropion-SR or XL\(^3\)
- **Nicotine Replacement Therapy (NRT)**\(^4\)

\(^1\) Refer to Appendix D for cognitive behavior and motivational intervention
\(^2\) Refer to Appendix B for medication options
\(^3\) Concurrent administration of bupropion and tamoxifen should be avoided. Bupropion significantly inhibits the metabolism of tamoxifen to some of its active metabolites, which may diminish the efficacy of tamoxifen.
\(^4\) Refer to Appendix C for NRT

\(^1\) Refers to 1st choice
\(^2\) Refers to 2nd choice

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**1st PHARMACOTHERAPY CHOICE**

Follow-up around 2 weeks to assess response to treatment

**ASSESSMENT**

- Quit
  - Follow-up around 2 weeks to assess response to treatment
  - Cut down by 50% or more

- Medication as 1st choice
  - Continue same regimen

**2nd PHARMACOTHERAPY CHOICE**

- Change to another 1st line medication or NRT
  - Reassess every 1-2 weeks for a total of 10-12 weeks
  - Follow-up every 3 months for 1 year

**3rd PHARMACOTHERAPY CHOICE**

- Consider 1st line medication treatment

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\(^3\) Department of Clinical Effectiveness V2

Approved by the Executive Committee of the Medical Staff on 12/12/2017
Evaluate patient for risk of smoking relapse. Patients meeting 1 or more of the following criteria may be considered high risk for relapse:
- Frequent/intense cravings
- Elevated stress/depression
- Living/working with smokers
- Time since quitting (less than 1 year)
- Currently using a smoking cessation treatment (i.e., pharmacotherapy, NRT\(^1\))
- Drug use/abuse (i.e., marijuana, narcotics, stimulants)

For patients concerned about ability to maintain abstinence:
- Offer Pharmacotherapy (i.e., medications\(^2\) or NRT\(^1\)) and behavioral therapy\(^3\)
- Review smoking-associated risks and benefits of remaining abstinent from smoking
- Brief counseling for preventing relapse
- Offer patient support resources

Regularly reevaluate smoking status and risk of relapse in subsequent encounters (in person or by phone)

If relapsed:
- See box A on page 1 “Ready to quit?”
- Refer for smoking cessation pharmacotherapy and counseling

\(^1\) Refer to Appendix C for NRT
\(^2\) Refer to Appendix B for Medication Options
\(^3\) Refer to Appendix D for Cognitive Behavior and Motivational Intervention
APPENDIX A: Tobacco History Assessment

- How much do you smoke per day?
  - If greater than 20 cigarettes, see footnote 1
- How soon do you smoke after you wake up in the morning?
  - If within 30 minutes, see footnote 1
- Do you use any other type(s) of tobacco/nicotine products and if so, how much? (e.g., pipes, cigars, snuff, and/or e-cigarettes)
- Do you use tobacco everyday or some days?
  - If daily, see footnote 1
- Fagerstrom Test of Nicotine Dependency (FTND) (optional)
  - If they score 3 or higher indicates dependence on nicotine

Document history of quit attempts in patient health record:
- What is the longest period you have gone without smoking?
- When was your last quit attempt?
- Did you use anything to help you quit in the past? If so, what?
  - Unaided
  - Medications
  - Support group
  - Behavior therapy
  - Quitlines, websites, smart phone applications, or other media
  - E-cigarettes
  - Other
- Why were previous quit attempts unsuccessful?
  - (e.g., side effects, cost, continued cravings, did not work)
- Engage patients in a motivational dialog about smoking cessation.
  - Review risks of smoking and benefits of quitting
  - Provide patient education resources

APPENDIX B: Medication Options

- Varenicline (Chantix®) for 12 weeks; if patient quits, then renew another 12 weeks
  - 0.5 mg for three days, then
  - 0.5 mg twice a day for 4 days, then
  - 1 mg twice a day
- Bupropion-SR® (Zyban®) for 12 weeks; if patient quits, then renew another 12 weeks
  - 150 mg daily for 3-7 days, then
  - 150 mg twice a day or Bupropion-XL® 150 mg every morning for 3-7 days, then
  - 300 mg every morning

APPENDIX C: Nicotine Replacement Therapy3 (NRT)

Nicotine Patch:
- If greater than 10 cigarettes per day or smokes within 30 minutes of awaking:
  - 21 mg daily for 6 weeks or more
  - 14 mg daily for 2 weeks or more
  - 7 mg daily for 2 weeks or more
  - If patient quits, either stop or taper to next lower level. Minimum of 12 weeks, recommended up to 24 week
- If less than 10 cigarettes per day or smokes after at least 30 minutes of awaking
  - 14 mg daily for 6 weeks or more
  - 7 mg daily for 2 weeks or more
  - If patient quits, either stop or taper to 7 mg. Use for a minimum of 12 weeks; recommended for up to 24 weeks

Episodic NRT: (Dosing minimum of 8 doses/day; maximum 20 doses/day. One dose every 1-2 hour(s) as needed for 12 weeks or more)
- Gum or lozenges: 2 mg or 4 mg/piece (4 mg is preferred due to favorable cost, effectiveness and ease of use)
- Nasal spray: 2 squirts (1 mg) equals 1 dose (not preferred due to higher cost and difficulty of use)
- Oral inhaler: 10 mg/cartridge (20 puffs equal 1 dose) (not preferred due to higher cost and difficulty of use)

1Patient has a higher likelihood of being nicotine dependent and more difficult to quit
2Bupropion inhibits the metabolism of tamoxifen diminishing the availability of active tamoxifen metabolites and therefore tamoxifen becomes ineffective in preventing recurrence of certain breast cancers (HR+ types).
3Continuous use of NRT: There is no standard timeframe beyond 12 weeks; it is based on individual preference.
APPENDIX D: Cognitive Behavioral and Motivational Intervention

<table>
<thead>
<tr>
<th>Type of Counseling</th>
<th>Interventions</th>
</tr>
</thead>
</table>
| Inpatient/Outpatient and by Phone | - Negotiate quit date, a trial quit attempt or a scheduled reduction  
- Support cessation and build abstinence skills  
- Review educational handouts  
- Explore social support  
- Problem solving  
- Discuss medication options  
- Assessment of motivation and readiness to quit  
- Relapse prevention |
| Related Interventions | - Explore psychiatric symptoms  
- Cancer related distress:  
  - Internal resources: Place of Wellness, Palliative Care, Integrative Medicine  
  - External resources: Cancer Counseling Incorporated, help locate community resources  
  - Consultation:  
    - Psychiatrist-physician  
    - APN/PA |

1 Refer to Appendix B for Medication Options
Tobacco Cessation Algorithm - Adult

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SUGGESTED READINGS


This screening algorithm is based on majority expert opinion of the Tobacco Cessation work group at the University of Texas MD Anderson Cancer Center. It was developed using a multidisciplinary approach that included input from the following:

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