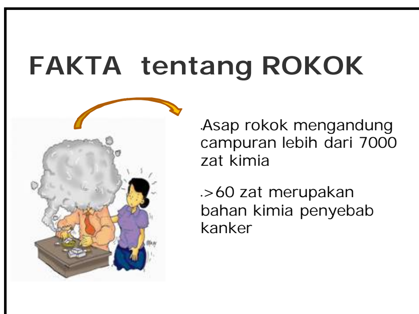
Dewi N Makhabah
Pulmonologist and researcher
Pulmonology Dept of Sebelas Maret University
benderakita.com

Pada zaman dahulu kala...

Maka...
Sejak...
Saat...
itu...

Rokok menjajah Indonesia
Biaya ekonomi dan sosial yang ditimbulkan akibat konsumsi tembakau terus meningkat
Angka kerugian akibat rokok setiap tahun mencapai 200 juta dolar Amerika, sedangkan angka kematian akibat penyakit yang diakibatkan merokok terus meningkat.
Di Indonesia, jumlah biaya konsumsi tembakau tahun 2005 yang meliputi biaya langsung di tingkat rumah tangga dan biaya tidak langsung karena hilangnya produktifitas akibat kematian dini, sakit dan kecacatan adalah US $ 18,5 Milyar atau Rp 167,1 Triliun. Jumlah tersebut adalah sekitar 5 kali lipat lebih tinggi dari pemasukan cukai sebesar Rp 32,6 Triliun atau US$ 3,62 Milyar tahun 2005 (1US$ = Rp 8.500,-)


FAKTA tentang ROKOK
Asap rokok mengandung campuran lebih dari 7000 zat kimia
>60 zat merupakan bahan kimia penyebab kanker

BAHAYA MEROKOK
± 200.000 orang di Indonesia meninggal karena sakit yang disebabkan rokok setiap tahun.
Kerugian ekonomi karena rokok
Terdapat 3,9 juta anak berusia 10-14 tahun yang menjadi perokok aktif di Indonesia, terjadi peningkatan tajam pada kelompok umur mulai merokok 10-14 tahun sebesar 80% dalam kurun 9 tahun (2001-2010).

Beberapa RACUN dalam asap rokok

- **Nikotin** – penyebab ketergantungan
- **Formalin**– sering dipakai sebagai bahan pengawet
- **Cairan pembersih toilet** (amonia)
- **Sianida** – racun tikus
- **Pembersih cat kuku** (acetone)
- **Karbon monoksida** – gas buang kendaraan
- **Tar** – zat padat dalam asap rokok
- **Kapur barus** – digunakan dalam pupuk penyubur

Mengapa banyak orang merokok tapi tetap sehat?

Nicotine can harm brain development, which continues to about age 25.

Know the Risks.
Visit E-cigarettes.SurgeonGeneral.gov

Adakah jumlah rokok yang aman?

- Merokok sedikit ataupun banyak sama saja resikonya
- Tidak ada jumlah rokok yang aman
- Walaupun satu batang saja sudah mengandung banyak zat yang berbahaya

- Mereka memang kelihatan sehat **(tetapi belum tentu, karena tidak diperiksa)**
- Kualitas hidup mereka lebih buruk dibandingkan dengan yang tidak merokok
- Mungkin mereka beruntung pada saat ini tetapi penyakit akan datang bila mereka merokok, karena kesempatan untuk menjadi sakit lebih besar di bandingkan dengan orang yang tidak merokok

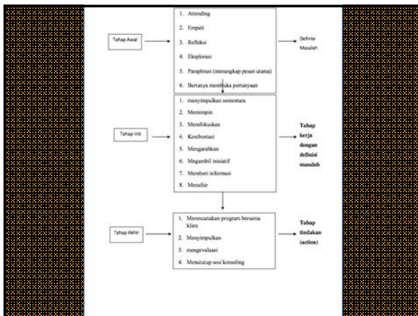
BAHAYA ROKOK ELEKTRIK

Konseling

- 'a relationship between a concerned helper and a person seeking help in which both the skill of the helper and the atmosphere that he or she creates help people learn to relate with themselves and other in more growth producing ways'
- Proses pemberian bantuan yang ditujukan agar seseorang mampu memahami diri, mengenal lingkungan dan merencanakan masa depannya.

Konselor

- Genuineness/ Murni, nyaman dengan dirinya
- Non Possessive Warmth: verbal non verbal, kemandirian dari konselor
  - Respect: Kontak mata, ekspresi wajah
  - Being Non-Judgemental
- Empathy/ Empati
  - Listening, not just hearing: mental (pengamatan, perasaan, intuisi) & sosial (responding)
  - Identification: kompetensi, emosi & moral



Perlu mengenal sifat dasar manusia dalam komunikasi

Sifat dasar manusia dalam berkomunikasi

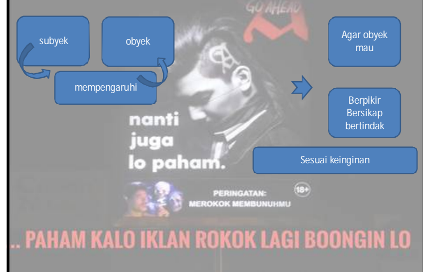
1. Manusia dan pamrih
2. Senang diperhatikan
3. Senang dihargai
4. Tidak senang didikte dan dipaksa
5. Tidak senang dibantah
6. Ingin umpan balik tapi tidak senang disalahkan
7. Senang dipuji dan tidak suka dikritik

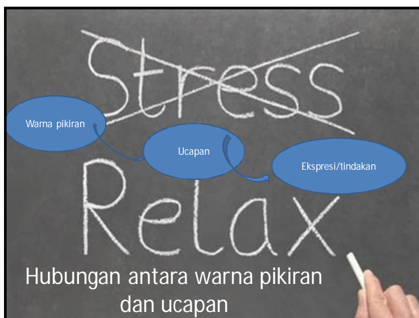
Amygdala VS Cortex Prefrontal

Mengapa pesan yang kita sampaikan gagal?

- Pesan tersebut berupa ancaman sehingga membangunkan "alarm" amydala
- Pesan harus menyenangkan sehingga seseorang melakukannnya karena senang dan merasa membutuhkan.
- Oleh karena itu pesan harus sampai ke cortex prefrontal

Hakikat komunikasi





Hubungan antara warna pikiran dan ucapan

- Sebenarnya bukanlah mulut yang harus dikontrol, tetapi adalah warna pikiran di otak
- Mulut hanya di bawah perintah otak
- Jika kondisi emosi di otak (suasana hati) tidak menyenangkan maka ucapan yang keluar di mulut tidak menyenangkan

Persepsi perokok tentang rokok

1. Tahu bahaya rokok tapi lebih banyak manfaat yang dirasakan perokok.
2. Ingin berhenti tetapi tidak tahu harus memulai
3. Tidak mau tahu, tidak ingin berhenti dan tidak mau peduli bahaya rokok

Strategi Mini Konseling

1. Posisi sejajar
2. Gesture
3. Sepatah dua patah kata yang menunjukkan perhatian
4. Parafrase
5. Afirmasi
6. Kesimpulan

Tahapan Perubahan Perilaku

1. **Tahap prokontemplasi**
   (Belum berpikir sama sekali)
   → Mendidik klien mengenai efek adiksi, perilaku dan bahayanya
2. **Tahap Kontemplasi**
   (Mulai berpikir bahwa merokok menimbulkan masalah)
   → Beri dukungan, umpan balik (konfrontasi dengan ramah , humor)
3. **Tahap Preparation/persiapan**
   (Mau dan siap berhenti merokok)
   → Membantu upaya berhenti merokok, identifikasi hambatan, rencanakan berhenti merokok.

Tahapan Berhenti Merokok

- Pre Kontemplasi
  - Tidak pernah tahu bahaya/kerugian merokok
  - Tidak pernah berpikir untuk berhenti merokok walaupun tahu ttg bahaya merokok
- Kontemplasi
  - Sudah berpikir untuk berhenti merokok (alasan kesehatan/pemborosan/penampilan, dsb.)
- Aksi (berhenti merokok)
- *Maintenance* (memelihara agar tetap tidak merokok)
- *Relapse* (kambuh, kembali merokok)

Analisis Pasien 1

- Pre-kontemplasi
  - Ngeyel, pertanyaan menyudutkan
  - tidak yakin akan bahaya merokok, menutup diri, mencari alasan agar tidak perlu berhenti merokok
  - tidak yakin bahwa sakitnya berhubungan dg rokok,
  - Merasa sudah kecanduan
  - Merasa disudutkan dengan informasi yang diberikan
  - Apatis ketika berinteraksi dengan konselor
- Kontemplasi
  - Mulai mikir, ttp tidak yakin rokok berbahaya dan butuh dorongan
  - Mulai mikir, ttp tidak yakin akan berhasil berhenti, takut kambuh,
  - Keinginan besar untuk tahu baik tentang bahaya, keuntungan berhenti, cara berhenti, dsb

Analisis Pasien 2

- Aksi
  - Sudah bertindak untuk berhenti, bisa mulai dengan mengurangi sampai berhenti sama sekali
  - Menerapkan strategi tertentu untuk berhenti
- *Maintanence*
  - Sudah berhenti sama sekali dan membutuhkan dukungan untuk tetap tidak merokok
- *Relapse*
  - Merokok lagi setelah berhenti beberapa waktu
  - Merasa tidak mampu untuk tetap tidak merokok

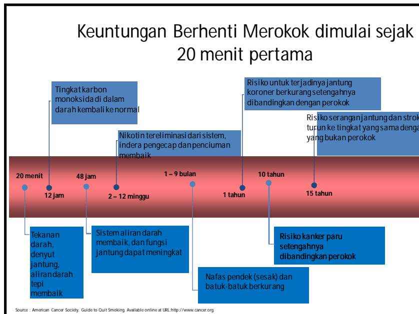
Kiat Menghadapi Klien

- Pre-Kontemplasi
  - Jangan habiskan waktu terlalu banyak untuk pasien seperti ini
- Kontemplasi
  - Dorong pasien untuk memahami permasalahan
  - Beri waktu yang cukup untuk konsultasi (meluruskan
- Aksi
  - Pujian dan dukungan
  - Tanggapi semua permasalahan yang diajukan dan beri masukan2
- *Maintenance*
  - Pujian dan dukungan
  - Tanggapi semua permasalahan yang diajukan dan beri masukan2
- *Relapse*
  - Identifikasi permasalahan dan kemungkinan pemecahan
  - Beri dorongan untuk kembali berhenti merokok

Kontribusi Staf/Petugas Kesehatan yang diharapkan

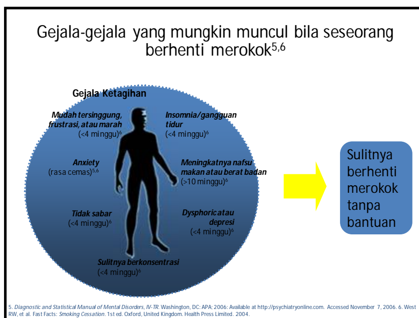
- Menciptakan area bebas rokok di seluruh ruang (pasien maupun pegawai)
- Memasukkan kebiasaan merokok dalam anamnesis
- Menganjurkan untuk berhenti merokok bagi pasien dan keluarganya yang merokok
- Menyebarkan leaflet tentang berhenti merokok
- Merujuk ke konseling berhenti merokok

Keuntungan Berhenti Merokok dimulai sejak 20 menit pertama



Siklus Adiksi Nikotin

Gejala-gejala yang mungkin muncul bila seseorang berhenti merokok[5,6]



5. *Diagnostic and Statistical Manual of Mental Disorders, IV-TR.* Washington, DC: APA; 2006: Available at http://psychiatryonline.com. Accessed November 7, 2006. 6. West RW, et al. Fast Facts: *Smoking Cessation.* 1st ed. Oxford, United Kingdom. Health Press Limited. 2004.

c. Test untuk Ketergantungan Nikotin

Item	Pilihan Respon	Point
1. Berapa lama setelah bangun tidur anda merokok?	▪ dalam 5 menit ▪ 6-30 menit ▪ 30-60 menit ▪ setelah 60 menit	3 2 1 0
2. Apakah anda mengalami kesulitan untuk menahan diri ... dilarang?	▪ ya ▪ tidak	1 0
3. Waktu Rokok ... ditinggalkan?	▪ ... ▪ waktu lain	1 0
4. Berapa jumlah batang rokok yang dihisap setiap hari?	▪ ≤10 ▪ 11-20 ▪ 21-30 ▪ ≥31	0 1 2 3
5. Apakah merokok lebih banyak selama beberapa jam setelah bangun tidur dibanding waktu lain?	▪ ya ▪ tidak	1 0
6. Apakah tetap merokok apabila tidak sehat dan pada saat bed rest?	▪ ya ▪ tidak	1 0

0-5 ketergantungan rendah
6-10 ketergantungan sedang
11-15 ketergantungan berat

Menilai tingkat motivasi

- **Simpel :**
  Pasien ditanyakan mengenai berapa besar motivasi untuk berhenti merokok dengan skala angka "0 " sampai "10"

  0 = Tidak ada motivasi sama sekali

  10 = Sangat termotivasi/motivasi sangat tinggi

Prinsip-prinsip upaya berhenti merokok

2. Evaluasi dan dukungan motivasi

- Semua tahapan terdapat proses pembicaraan penting yaitu menelaah sejauh mana pasien termotivasi untuk tetap berhenti merokok.
- Apabila tingkat motivasi seseorang yang rendah/kurang maka diperlukan dukungan motivasi.
- Dukungan motivasi juga diperlukan dari anggota keluarga atau orang terdekat

Nardini S, European Respiratory Monograph 42, 2008
Fiore MC, Treating tobacco use and dependence, 2008
Haora MoHM, Guidelines for smoking cessation. New Zealand. 2002

Pendekatan motivasi

1. Ungkapkan Empati
   - Gunakan pertanyaan *open ended* untuk menggali informasi
   - Dengarkan pasien untuk memahami
2. Bangun ketidaksukaan/ ketidaksesuaian
   - Tekankan kepada pasien mengenai ketidaksesuaian kebiasaan pasien merokok dengan suatu nilai, tujuan, harapan dari program
   - Tekankan pada kalimat yang mengundang komitmen dari pasien
   - Bangun dan perdalam komitmen yang sudah dibuat.
3. Menghadapi penolakan
   - Potong pembicaraan dan alihkan perhatian jika terdapat tanda-tanda penolakan dari pasien
   - Nyatakan empati.
   - Tanyakan kepada pasien untuk memberikan informasi penunjang lain.
4. Dukungan motivasi saat *follow up*
   - Jika perokok berhasil melakukan pantangan
   - Jika perokok melakukan penyimpangan dari program
   - Jika perokok merokok kembali setelah 2-3 minggu program

Prinsip-prinsip Upaya berhenti merokok

3. Penatalaksanaan / terapi

Terapi nonfarmakologi

1. Self help
2. Brief advice
3. konseling
   a. Individu
   b. Kelompok
   c. Konseling melalui telepon
4. Terapi perilaku
5. 5. Terapi pelengkap
   a. Hipnoterapi
   b. Akupuntur
   c. Akupresure

Terapi farmakologi

1. Terapi pengganti nikotin (Nicotine Replacement Therapy/ NRT)
2. *Bupropion SR*
3. *Varenicline tartrate*

Kombinasi terapi baik terapi nonfarmakologi dan farmakologi telah terbukti bermakna memberikan tingkat keberhasilan yang lebih baik dibandingkan terapi tunggal.

Nardini S, European Respiratory Monograph 42, 2008
Fiore MC, Treating tobacco use and dependence, 2008
Haora MoHM, Guidelines for smoking cessation New Zealand: 2002

CARA BERHENTI MEROKOK

Cara 1:

BERHENTI SEKETIKA

- Hari ini anda masih merokok, besok anda berhenti sama sekali. Untuk kebanyakan orang, cara ini yang paling berhasil. Untuk perokok berat, mungkin dibutuhkan bantuan medis untuk mengatasi efek ketagihan

Cara 2: PENUNDAAN

- Menunda saat mengisap rokok pertama, 2 jam setiap hari dari hari sebelumnya. Jumlah rokok yang dihisap tidak dihitung. Misalnya kebiasaan menghisap rokok pertama rata-rata 07.00 pagi, berhenti merokok direncanakan dalam 7 hari. Maka rokok pertama ditunda waktunya, yaitu :

  Hari 1 : jam 09.00
  Hari 2 : jam 11.00
  Hari 3 : jam 13.00
  Hari 4 : jam 15.00
  Hari 5 : jam 17.00
  Hari 6 : jam 19.00
  Hari 7 : jam 21.00 – terakhir

Cara 3 : PENGURANGAN

- Jumlah rokok yang diisap setiap hari dikurangi secara berangsur-angsur dengan jumlah yang sama sampai 0 batang pada hari yang ditetapkan. Misalnya rata-rata menghisap 28 batang rokok per hari. Berhenti merokok direncanakan dalam 7 hari.

  Hari 1 : 24 batang
  Hari 2 : 20 batang
  Hari 3 : 16 batang
  Hari 4 : 12 batang
  Hari 5 : 8 batang
  Hari 6 : 4 batang
  Hari 7 : 0 batang

Cth Pendekatan Konseling sesuai Kelompok Umur

Umur	Karakter	Pendekatan
Remaja	- Perspektif jangka pendek - Merasa merokok bukan adiksi - Alasan: Sosialisasi dan Penampilan	- **Hindari** nasehat **menakut-nakuti** (penyakit) - Fokus pada **dampak langsung rokok** (nafas bau, gigi/jari kuning) - Tegaskan akibat nikotin & CO pada prestasi **olahraga** - Jelaskan iklan rokok yang tidak jujur

1. http://www.stop-smoking-tips.com/dangers-smoking-passive-smokers.html
2. http://thescoopsmoking.org/shtml/faq.php

Cth Pendekatan Konseling sesuai Kelompok Umur

Umur	Karakter	Pendekatan
20–30 thn	- Banyak baru berumahtangga - Mulai sadar dampak buruk rokok - Ingin berhenti, tapi ketagihan - Ingin berhenti karena akan/sudah hamil	- **Dukung** quitter untuk cepat berhenti → efek buruk dari merokok bersifat kumulatif - Jelaskan **dampak buruk** rokok pada **perokok pasif** - Jelaskan bahaya rokok pada janin

1. http://www.stop-smoking-tips.com/dangers-smoking-passive-smokers.html
2. http://thescooponsmoking.org/xhtml/faq.php

Cth Pendekatan Konseling sesuai Kelompok Umur

Umur	Karakter	Pendekatan
31–40 thn	- Responsif terhadap bantuan berhenti - Risau akan efek gejala putus nikotin - Sudah pernah mencoba berhenti → gagal	- Tekankan pentingnya **kualitas hidup** yang baik - Jelaskan : a) Gejala putus nikotin → **sementara** & **dapat diatasi** b) Sakit → **kronis** - Kegagalan adalah **sukses yang tertunda** → perlu **terus mencoba**

1. Fiore MC, et al. US Department of Health and Human Services. Public Health Service. June 2000.
2. Foulds J, et al. *Expert Opin Emerg Drugs*. 2004;9:39–53. 3. Grandes G, et al. *Br J Gen Pract*. 2003;53:101–107.

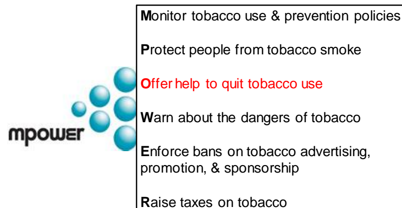
Cth Pendekatan Konseling sesuai Kelompok Umur

Umur	Karakter	Pendekatan
> 40 thn	- Berpendapat tak masalah, karena sudah lama merokok - Sudah sering mencoba → gagal terus	- Simpatik terhadap logika mereka - **Tegaskan manfaat** berhenti merokok pada **umur berapapun** - Jelaskan bahwa relaps adalah umum → usaha **terus mencoba** adalah penting

1. Fiore MC, et al. US Department of Health and Human Services. Public Health Service. June 2000.
2. Foulds J, et al. *Expert Opin Emerg Drugs*. 2004;9:39–53. 3. Grandes G, et al. *Br J Gen Pract*. 2003;53:101–107.

Wawancara Motivasional

- Untuk memahami tahapan perubahan perilaku pada klien
- Prinsip:
  - ➢ Ekspresikan Empati
  - ➢ Menghindari argumentasi
  - ➢ Dukungan keyakinan diri



Monitor tobacco use & prevention policies

Protect people from tobacco smoke

Offer help to quit tobacco use

Warn about the dangers of tobacco

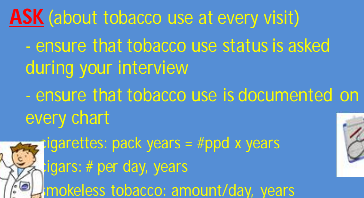
Enforce bans on tobacco advertising, promotion, & sponsorship

Raise taxes on tobacco

5 A's Tobacco Intervention

ASK (about tobacco use at every visit)

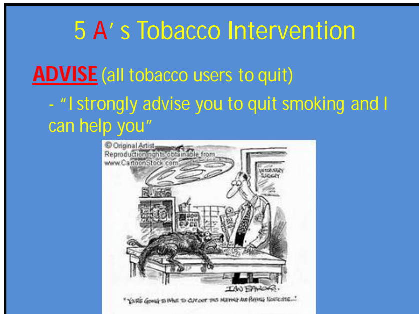
- ensure that tobacco use status is asked during your interview
- ensure that tobacco use is documented on every chart

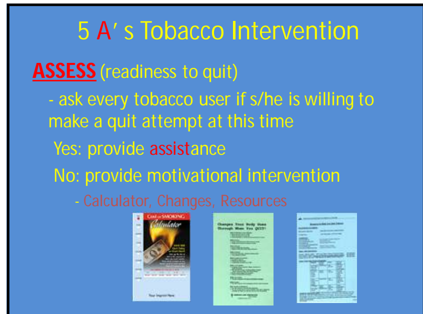


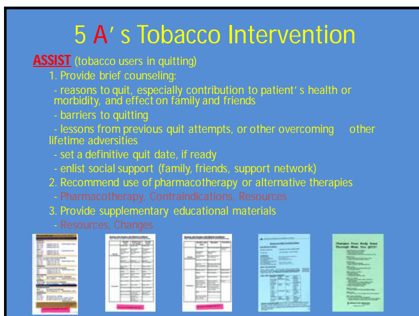
igarettes: pack years = #ppd x years

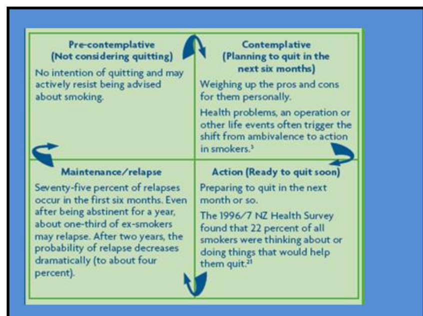
igars: # per day, years

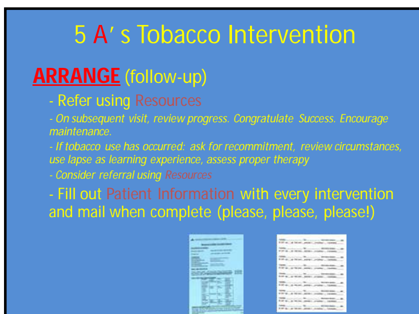
mokeless tobacco: amount/day, years







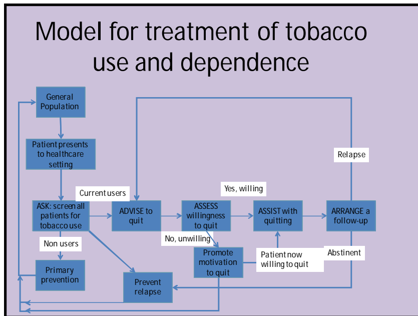




In Review

- Ask about smoking with every interview
- Advise all tobacco users to quit
- Assess readiness to quit; utilizing Calculator, Changes, and Resources for encouragement
- Assist in finding appropriate therapies (Pharmacotherapy/Contraindications) and educational services (Resources)
- Arrange referral (Resources)
- Fill-out Patient Information with every intervention and mail when complete
- Hand out the Resources and Changes to every patient, DO NOT HAND OUT THE NEON STICKERS

Model for treatment of tobacco use and dependence



ABC: Ask: Identify smokers

at each visit, ask all patients if they currently smoke

Month 0

- Do you smoke? Have you smoked at all- even a puff in the last three month
- Does anyone smoke inside your home?

At all other visits

- Ask if they have smoked at all- even a puff in the last two weeks
- Does anyone smoke inside your home?

International Union Against Tuberculosis and Lung Disease

ABC: Brief advice at each visit

5 to 10 minutes

Personalized advice (e.g.)

- Quitting smoking now you can recover properly from TB
- As soon as quit smoking, your coughing and sputum will decrease

General advice (e.g.)

- Smoking is very harmful for your health and family; it causes other disease such as cancer, heart disease
- To improve your health and your family's health, please do not allow anyone smoking inside

International Union Against Tuberculosis and Lung Disease

ABC: Cessation support

RUMAH TANPA ASAP ROKOK

KAWASAN TANPA ROKOK

TUBUH SEORANG PEROKOK

- Tell family, friends, and colleagues that they are quitting
- Remove smoking accessories from home and work places
- Suggest patients to make smoke-free home and avoid SHS
- Give patients leaflets, pamphlets

International Union Against Tuberculosis and Lung Disease

Clinical Use of Bupropion SR

Patient selection	Appropriate as a first-line medication for treating tobacco use
Precautions, warnings, contraindications, and side effects	*Pregnancy* – Pregnant smokers should be encouraged to quit without medication. Bupropion has not been shown to be effective for tobacco dependence treatment in pregnant smokers. (Bupropion is an FDA pregnancy Class C agent.) Bupropion has not been evaluated in breastfeeding patients. *Cardiovascular diseases* – Generally well-tolerated; occasional reports of hypertension. Side effects – The most common reported side effects were insomnia (35–40%) and dry mouth (10%). *Contraindications* – Bupropion SR is contraindicated in individuals who have a history of seizures or eating disorders, who are taking another form of bupropion, or who have used an MAO inhibitor in the past 14 days.
Dosage	Patients should begin bupropion SR treatment 1–2 weeks before they quit smoking. Patients should begin with a dose of 150 mg every morning for 3 days, then increase to 150 mg twice daily. Dosage should not exceed 300 mg per day. Dosing at 150 mg twice daily should continue for 7–12 weeks. For long-term therapy, consider use of bupropion SR 150 mg for up to 6 months post-quit.
Availability	Prescription only
Prescribing instructions	*Stopping smoking prior to quit date* – Recognize that some patients may lose their desire to smoke prior to their quit date or will spontaneously reduce the amount they smoke. *Dosing information* – If insomnia is marked, taking the PM dose earlier (in the afternoon, at least 8 hours after the first dose) may provide some relief. *Alcohol* – Use alcohol only in moderation.

Clinical Use of Nicotine Gum

Patient selection	Appropriate as a first-line medication for treating tobacco use
Precautions, warnings, contraindications, and side effects	*Pregnancy* – Pregnant smokers should be encouraged to quit without medication. Nicotine gum has not been shown to be effective for treating tobacco dependence in pregnant smokers. (Nicotine gum is an FDA pregnancy Class D agent.) Nicotine gum has not been evaluated in breastfeeding patients. *Cardiovascular diseases* – NRT is not an independent risk factor for acute myocardial events. NRT should be used with caution among particular cardiovascular patient groups: those in the immediate (within 2 weeks) post-myocardial infarction period, those with serious arrhythmias, and those with unstable angina pectoris. *Side effects* – Common side effects of nicotine gum include mouth soreness, hiccups, dyspepsia, and jaw ache. These effects are generally mild and transient and often can be alleviated by correcting the patient's chewing technique.
Dosage	Nicotine gum (both regular and flavored) is available in 2-mg and 4-mg (per piece) doses. The 2-mg gum is recommended for patients smoking less than 25 cigarettes per day; the 4-mg gum is recommended for patients smoking 25 or more cigarettes per day. Smokers should use at least one piece every 1 to 2 hours for the first 6 weeks; the gum should be used for up to 12 weeks with no more than 24 pieces to be used per day.
Availability	OTC only
Prescribing instructions	*Chewing technique* – Gum should be chewed slowly until a "peppery" or "flavored" taste emerges, then "parked" between cheek and gum to facilitate nicotine absorption through the oral mucosa. Gum should be slowly and intermittently "chewed and parked" for about 30 minutes or until the taste dissipates. *Absorption* – Acidic beverages (e.g., coffee, juices, soft drinks) interfere with the buccal absorption of nicotine, so eating and drinking anything except water should be avoided for 15 minutes before or during chewing. *Dosing information* – Patients often do not use enough prn NRT medicines to obtain optimal clinical effects. Instructions to chew the gum on a fixed schedule (at least one piece every 1–2 hours) for at least 1–3 months may be more beneficial than ad libitum use.

Clinical Use of the Nicotine Inhaler

Patient selection	Appropriate as a first-line medication for treating tobacco use
Precautions, warnings, contraindications, and side effects	*Pregnancy* – Pregnant smokers should be encouraged to quit without medication. The nicotine inhaler has not been shown to be effective for treating tobacco dependence in pregnant smokers. (The nicotine inhaler is an FDA pregnancy Class D agent.) The nicotine inhaler has not been evaluated in breastfeeding patients. *Cardiovascular diseases* – NRT is not an independent risk factor for acute myocardial events. NRT should be used with caution among particular cardiovascular patient groups: those in the immediate (within 2 weeks) post-myocardial infarction period, those with serious arrhythmias, and those with unstable angina pectoris. *Local irritation reactions* – Local irritation in the mouth and throat was observed in 40% of patients using the nicotine inhaler. Coughing (32%) and rhinitis (23%) also were common. Severity was generally rated as mild, and the frequency of such symptoms declined with continued use.
Dosage	A dose from the nicotine inhaler consists of a puff or inhalation. Each cartridge delivers a total of 4 mg of nicotine over 80 inhalations. Recommended dosage is 6–16 cartridges/day. Recommended duration of therapy is up to 6 months. Instruct patient to taper dosage during the final 3 months of treatment.
Availability	Prescription only
Prescribing instructions	*Ambient temperature* – Delivery of nicotine from the inhaler declines significantly at temperatures below 40° F. In cold weather, the inhaler and cartridges should be kept in an inside pocket or other warm area. *Absorption* – Acidic beverages (e.g., coffee, juices, soft drinks) interfere with the buccal absorption of nicotine, so eating and drinking anything except water should be avoided for 15 minutes before or during use of the inhaler. *Dosing information* – Patients often do not use enough prn NRT medicines to obtain optimal clinical effects. Use is recommended for up to 6 months, with gradual reduction in frequency of use over the last 6–12 weeks of treatment. Best effects are achieved by frequent puffing of the inhaler and using at least six cartridges/day.

Clinical Use of the Nicotine Lozenge

Patient selection	Appropriate as a first-line medication for treating tobacco use
Precautions, warnings, contraindications, and side effects	*Pregnancy* – Pregnant smokers should be encouraged to quit without medication. The nicotine lozenge has not been shown to be effective for treating tobacco dependence for pregnant smokers. The nicotine lozenge has not been evaluated in breastfeeding patients. Because the lozenge was approved as an OTC agent, it was not evaluated by the FDA for teratogenicity. *Cardiovascular diseases* – NRT is not an independent risk factor for acute myocardial events. NRT should be used with caution among particular cardiovascular patient groups: those in the immediate (within 2 weeks) post-myocardial infarction period, those with serious arrhythmias, and those with unstable angina pectoris. *Side effects* – The most common side effects of the nicotine lozenge are nausea, hiccups, and heartburn. Individuals on the 4-mg lozenge also had increased rates of headache and coughing (less than 10% of participants).
Dosage	Nicotine lozenges are available in 2-mg and 4-mg (per piece) doses. The 2-mg lozenge is recommended for patients who smoke their first cigarette more than 30 minutes after waking, and the 4-mg lozenge is recommended for patients who smoke their first cigarette within 30 minutes of waking. Generally, smokers should use at least nine lozenges per day in the first 6 weeks; the lozenge should be used for up to 12 weeks, with no more than 20 lozenges to be used per day.
Availability	OTC only
Prescribing instructions	*Lozenge use* – The lozenge should be allowed to dissolve in the mouth rather than chewing or swallowing it. *Absorption* – Acidic beverages (e.g., coffee, juices, soft drinks) interfere with the buccal absorption of nicotine, so eating and drinking anything except water should be avoided for 15 minutes before or during use of the nicotine lozenge. *Dosing information* – Patients often do not use enough prn NRT medicines to obtain optimal clinical effects. Generally, patients should use 1 lozenge every 1–2 hours during the first 6 weeks of treatment, using a minimum of 9 lozenges/day, then decrease lozenge use to 1 lozenge every 2–4 hours during weeks 7–9, and then decrease to 1 lozenge every 4–8 hours during weeks 10–12.

Clinical Use of Nicotine Nasal Spray

Patient selection	Appropriate as a first-line medication for treating tobacco use
Precautions, warnings, contraindications, and side effects	*Pregnancy* – Pregnant smokers should be encouraged to quit without medication. Nicotine nasal spray has not been shown to be effective for treating tobacco dependence in pregnant smokers. (Nicotine nasal spray is an FDA pregnancy Class D agent.) Nicotine nasal spray has not been evaluated in breastfeeding patients. *Cardiovascular diseases* – NRT is not an independent risk factor for acute myocardial events. NRT should be used with caution among particular cardiovascular patient groups: those in the immediate (within 2 weeks) post-myocardial infarction period, those with serious arrhythmias, and those with unstable angina pectoris. *Nasal/airway reactions* – Some 94% of users report moderate to severe nasal irritation in the first 2 days of use; 81% still reported nasal irritation after 3 weeks, although rated severity typically was mild to moderate. Nasal congestion and transient changes in sense of smell and taste also were reported. Nicotine nasal spray should not be used in persons with severe reactive airway disease. *Dependency* – Nicotine nasal spray produces higher peak nicotine levels than other NRTs and has the highest dependence potential. Approximately 15–20% of patients report using the active spray for longer periods than recommended (6–12 months); 5% used the spray at a higher dose than recommended.
Dosage	A dose of nicotine nasal spray consists of one 0.5-mg dose delivered to each nostril (1 mg total). Initial dosing should be 1–2 doses per hour, increasing as needed for symptom relief. Minimum recommended treatment is 8 doses/day, with a maximum limit of 40 doses/day (5 doses/hour). Each bottle contains approximately 100 doses. Recommended duration of therapy is 3–6 months.
Availability	Prescription only
Prescribing instructions	*Dosing information* – Patients should not sniff, swallow, or inhale through the nose while administering doses, as this increases irritating effects. The spray is best delivered with the head tilted slightly back.

Clinical Use of the Nicotine Patch

Patient selection	Appropriate as a first-line medication for treating tobacco use
Precautions, warnings, contraindications, and side effects	*Pregnancy* – Pregnant smokers should be encouraged to quit without medication. The nicotine patch has not been shown to be effective for treating tobacco dependence treatment in pregnant smokers. (The nicotine patch is an FDA pregnancy Class D agent.) The nicotine patch has not been evaluated in breastfeeding patients. *Cardiovascular diseases* – NRT is not an independent risk factor for acute myocardial events. NRT should be used with caution among particular cardiovascular patient groups: those in the immediate (within 2 weeks) post-myocardial infarction period, those with serious arrhythmias, and those with unstable angina pectoris. *Skin reactions* – Up to 50% of patients using the nicotine patch will experience a local skin reaction. Skin reactions usually are mild and self-limiting, but occasionally worsen over the course of therapy. Local treatment with hydrocortisone cream (1%) or triamcinolone cream (0.5%) and rotating patch sites may ameliorate such local reactions. In fewer than 5% of patients, such reactions require the discontinuation of nicotine patch treatment. *Other side effects* – insomnia and/or vivid dreams
Dosage	Treatment of 8 weeks or less has been shown to be as efficacious as longer treatment periods. Patches of different doses sometimes are available as well as different recommended dosing regimens. Clinicians should consider individualizing treatment based on specific patient characteristics, such as previous experience with the patch, amount smoked, degree of dependence, etc. Single Dosage: Both a 22 mg/24 hours and an 11 mg/24 hours (for lighter smokers) dose are available in a one-step patch regimen. Step-Down Dosage: First four weeks, 21 mg/24 hours. Then two weeks, 14 mg/24 hours. Final 2 weeks, 7 mg/24 hours
Availability	OTC or prescription
Prescribing instructions	*Location* – At the start of each day, the patient should place a new patch on a relatively hairless location, typically between the neck and waist, rotating the site to reduce local skin irritation. *Activities* – No restrictions while using the patch Dosing information – Patches should be applied as soon as the patient wakes on the quit day. With patients who experience sleep disruption, have the patient remove the 24-hour patch prior to bedtime, or use the 16-hour patch (designed for use while the patient is awake).

Clinical Use of Varenicline

Patient selection	Appropriate as a first-line medication for treating tobacco use
Precautions, warnings, contraindications, and side effects	*Pregnancy* – Pregnant smokers should be encouraged to quit without medication. Varenicline has not been shown to be effective for treating tobacco dependence in pregnant smokers. (Varenicline is an FDA pregnancy Class C agent.) Varenicline has not been evaluated in breastfeeding patients. *Cardiovascular diseases* – Not contraindicated *Precautions* – Use with caution in patients with significant kidney disease (creatinine clearance < 30mL/min) or who are on dialysis. Dose should be reduced with these patients. Patients taking varenicline may experience impairment of the ability to drive or operate heavy machinery. *Warning* – In February 2008, the FDA added a warning regarding the use of varenicline. Specifically, it noted that depressed mood, agitation, changes in behavior, suicidal ideation, and suicide have been reported in patients attempting to quit smoking while using varenicline. The FDA recommends that patients should tell their health care provider about any history of psychiatric illness prior to starting this medication, and clinicians should monitor patients for changes in mood and behavior when prescribing this medication. In light of these FDA recommendations, clinicians should consider eliciting information on their patients' psychiatric history. *Side effects* – Nausea, trouble sleeping, abnormal/vivid/strange Dreams
Dosage	Start varenicline 1 week before the quit date at 0.5 mg once daily for 3 days, followed by 0.5 mg twice daily for 4 days, followed by 1 mg twice daily for 3 months. Varenicline is approved for a maintenance indication for up to 6 months. Note: Patient should be instructed to quit smoking on day 8, when dosage is increased to 1 mg twice daily.
Availability	Prescription only
Prescribing instructions	*Stopping smoking prior to quit date* – Recognize that some patients may lose their desire to smoke prior to their quit date or will spontaneously reduce the amount they smoke. *Dosing information* – To reduce nausea, take on a full stomach. To reduce insomnia, take second pill at supper rather than bedtime.

Clinical Use of Clonidine

Patient selection	Appropriate as a second-line medication for treating tobacco use
Precautions, warnings, contraindications, and side effects	*Pregnancy* – Pregnant smokers should be encouraged to quit without medication. Clonidine has not been shown to be effective for tobacco cessation in pregnant smokers. (Clonidine is an FDA pregnancy Class C agent.) Clonidine has not been evaluated in breastfeeding patients. *Activities* – Patients who engage in potentially hazardous activities, such as operating machinery or driving, should be advised of a possible sedative effect of clonidine. *Side effects* – Most commonly reported side effects include dry mouth (40%), drowsiness (33%), dizziness (16%), sedation (10%), and constipation (10%). As an antihypertensive medication, clonidine can be expected to lower blood pressure in most patients. Therefore, clinicians should monitor blood pressure when using this medication. *Rebound hypertension* – When stopping clonidine therapy, failure to reduce the dose gradually over a period of 2–4 days may result in a rapid increase in blood pressure, agitation, confusion, and/or tremor.
Dosage	Doses used in various clinical trials have varied significantly, from 0.15–0.75 mg/day by mouth and from 0.10–0.20 mg/day transdermal (TTS), without a clear dose-response relation to treatment outcomes. Initial dosing is typically 0.10 mg b.i.d. PO or 0.10 mg/day TTS, increasing by 0.10 mg/day per week if needed. The dose duration also varied across the clinical trials, ranging from 3–10 weeks.
Availability	*Oral* – Prescription only *Transdermal* – Prescription only
Prescribing instructions	*Initiate* – Initiate clonidine shortly before (up to 3 days), or on the quit date. *Dosing information* – If the patient is using transdermal clonidine, at the start of each week, he or she should place a new patch on a relatively hairless location between the neck and waist. Users should not discontinue clonidine therapy abruptly.

Clinical Use of Nortriptyline

Patient selection	Appropriate as a second-line medication for treating tobacco use
Precautions, warnings, contraindications, and side effects	*Pregnancy* – Pregnant smokers should be encouraged to quit without medication. Nortriptyline has not been shown to be effective for tobacco cessation in pregnant smokers. (Nortriptyline is an FDA pregnancy Class D agent.) Nortriptyline has not been evaluated in breastfeeding patients. *Side effects* – Most commonly reported side effects include sedation, dry mouth (64–78%), blurred vision (16%), urinary retention, lightheadedness (49%), and shaky hands (23%). *Activities* – Nortriptyline may impair the mental and/or physical abilities required for the performance of hazardous tasks, such as operating machinery or driving a car; therefore, the patient should be warned accordingly. *Cardiovascular and other effects* – Because of the risk of arrhythmias and impairment of myocardial contractility, use with caution in patients with cardiovascular disease. Do not co-administer with MAO inhibitors.
Dosage	Doses used in smoking cessation trials have initiated treatment at a dose of 25 mg/day, increasing gradually to a target dose of 75–100 mg/day. Duration of treatment used in smoking cessation trials has been approximately 12 weeks, although clinicians may consider extending treatment for up to 6 months.
Availability	Nortriptyline HCl – prescription only
Prescribing instructions	*Initiate* – Therapy is initiated 10–28 days before the quit date to allow nortriptyline to reach steady state at the target dose. *Therapeutic monitoring* – Although therapeutic blood levels for smoking cessation have not been determined, therapeutic monitoring of plasma nortriptyline levels should be considered under American Psychiatric Association Guidelines for treating patients with depression. Clinicians may choose to assess plasma nortriptyline levels as needed. *Dosing information* – Users should not discontinue nortriptyline abruptly because of withdrawal effects. Overdose may produce severe and life-threatening cardiovascular toxicity, as well as seizures and coma. Risk of overdose should be considered carefully before using nortriptyline.