#### 35 y/o Man from Texas

- Heavy smoker (up to 30CPD) since starting at age 15
- Average 20-40 CPD over past year
- Stopped smoking 1x for 8 months non-smoking girlfriend
- Efforts to cut down → nicotine withdrawal despite nicotine gum or nicotine patches.
- Bupropion → ↓ libido

## 35 y/o Man from Texas Initial Pharmacotherapy

- A. Bupropion
- **B.** Varenicline
- C. Varenicline & nicotine inhaler
- D. 2-21 mg nicotine patches & nicotine lozenges

### 35 y/o Man from Texas (cont.)

- Resisted idea of nicotine patch therapy.
   Wanted to consider no pharmacotherapy
- Varenicline 1mg on day 1 with rapid ↑ + nicotine inhaler
- Day 2-Severe nicotine withdrawal disheveled, tremulous, no sleep, cut himself shaving.
- Considered checking out of program
- Baseline serum cotinine 396 ng/mL

## 35 y/o Man from Texas Next Steps

- A. Send him home
- B. Add nicotine patch therapy at dose of 56 mg/d and ↑ varenicline to 1 mg twice daily
- C. Add bupropion
- D. Add 4 mg nicotine lozenge

#### 35 y/o Man from Texas (cont.)

- Declined nicotine patch dose of 56 mg/d. Agreed to 42 mg/d dose → improved w/d relief by afternoon of Day 2. ↑ varenicline to 1 mg BID
- Day 3-Markedly improved. Tremor gone, less irritable, but not sleeping well.
- Day 4-Slept better. Less w/d
- Day 5-Steady state serum cotinine 323 ng/mL
   Discussed safety margin if more NRT needed
- Day 7-"Best night sleep I've had in many vears"
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## 35 y/o Man from Texas Dismissal Meds.

- A. Continue varenicline 1 mg BID, nicotine inhaler but D/C nicotine patches
- B. D/C varenicline and continue patches & inhaler
- C. Continue varenicline and ad lib inhaler. Continue 42 mg nicotine patch dose for 2 weeks then taper
- D. Continue varenicline and ad lib nicotine inhaler. | patch dose to 21 mg/d.

#### 62 Y/O Woman with COPD

- COPD
- Smokes 20-25 cpd CO 43 ppm
- Stopped smoking one time for 2 years W/D symptoms when she tries to stop
- Using nicotine gum in past few weeks to decrease smoking rate
- All friends smoke
- Would like to try varenicline

## 62 Y/O Woman with COPD Pharmacotherapy Options

- A. 21 mg nicotine patch.
- B. 21 mg + 14 mg nicotine patch.
- C. Bupropion + nicotine gum
- D. Varenicline 0.5 mg/d x 3d then 0.5 mg twice daily x 4 d then 1.0 mg twice daily.

# 62 Y/O Woman with COPD Telephone F/U at 2 Weeks

- Started varenicline but use nicotine gum if she had w/d during the run up to her stop date
- Initially using 10-12 pieces nicotine gum per day to control withdrawal
- Decreased nicotine gum use as varenicline dose is increased to 1 mg BID
- After 2 weeks she has reduced to 5 cpd and w/d symptoms are less but struggling.
- Next steps?

## 62 Y/O Woman with COPD Next Steps?

- A. D/C varenicline and start nicotine patch therapy.
- B. Increase dose of varenicline.
- C. Add bupropion
- D. Continue varenicline provide support through telephone counseling or an office visit.

#### 62 Y/O Woman with COPD

- Added 0.5mg varenicline dose at noon
- Continue ad lib nicotine gum
- Phone call 2 weeks later. Still smoking 3 cpd
- Increase varenicline to 1mg TID
- Phone call 2 weeks later. Stopped smoking a week ago
- Continue varenicline and nicotine gum and call back In a month

### 52 Y/O Male Recovering Alcoholic

- 20 cpd since early 20's
- Limited success nicotine patches and varenicline → mood change with suicidal ideation
- PH depression but no meds in past 5 yrs
- Nicotine lozenges help cravings

#### 52 y/o Male Recovering Alcoholic

- A. Bupropion
- B. 21 mg nicotine patch + 4 mg nicotine lozenge
- C. Varenicline
- D. 21 mg nicotine patch

- 21 mg nicotine patch + 4 mg nicotone Lozenge
- Awakened at 2 am with overpowering urge to smoke - "A Jones"
- PFT's abnormal
- Baseline serum cotinine 298 ng/mL
- What next?

- A. Stay the course with 21 mg patch and 4 mg lozenge
- B. Add nicotine inhaler
- C. ↑ patch dose to 2-21 mg patches
- D. Add nicotine nasal spray

- More comfortable on 42 mg patch dose
- Working hard in program
- Exercise regularly on unit. Will go to Y for daily swimming
- Day 3 End of day was rough ↑ cravings. Patch fell off in evening, replaced with new 21 mg patch "Everything got better"

- A. Add 14 mg patch at 4 pm
- B. Stay the course
- C. Add nicotine nasal spray
- D. ↑ patch dose to 48 mg/d

- Much better evenings with 14 mg patch at 4 pm
- Steady state serum cotinine 348 ng/mL
- Strong support from his wife and daughter
- He's very engaged in the program.
   Dismissed on 42 mg patch dose in am, 14 mg patch in pm, + ad lib nicotine lozenge

- Telephone F/U doing well except when he forgets to change patches
- 62 days smoke free. Going to local support group
- Frequent contact with 2 residential patients
- 5 months smoke-free severe urges to smoke, mood swings, continues on 21 mg patches
- 6 months smoke-free and improving
- 9 months past treatment → suicide

## 34 y/o Spit Tobacco User

- Started age 10
- Copenhagen 1 tin/d
- 4-5 previous attempts to stop longest 2 days using nicotine patch
- Oral exam: erythema, gingival recession, leukopakia
- Serum nicotine 30 ng/ml, cotinine 402 ng/ml
- Residential treatment

- A. 21 mg nicotine patch plus nicotine lozenge
- B. Varenicline, 42 mg nicotine patch dose, nicotine gum prn, snuff substitute prn
- C. Bupropion plus nicotine gum
- D. 42 mg nicotine patch dose plus nicotine lozenge

Admission: Varenicline, 42 mg nicotine patch dose, nicotine gum prn, snuff substitute prn

#### Day 2

- Difficulty sleeping
- Strong cravings, consistently thinking about Copenhagen
- Using a lot of nicotine gum

- A. ↑ Nicotine patch dose to 56 mg/d
- B. Add nicotine lozenges
- C. Toughen up
- D. Add NNS

## Day 4

- nicotine patch dose to 56 mg/d
- Sleeping better
- \ \ cravings
- Steady state serum nicotine –
   33 ng/ml, cotinine 318 ng/ml

#### Day 8

 Dismissed on 56 mg nicotine patch dose, varenicline, nicotine gum prn, snuff substitute, telephone follow-up

#### Month 3

 Continuous tobacco abstinence, nicotine patch 21 mg/d, varenicline

## 53 y/o WM Executive

- Smoked cigarettes as early as age 5
- 20 cpd until 1991 MI → CABG x 3
- 3 mos post-MI relapse to smoking cigarettes
- Switched to pipe "I knew I couldn't smoke cigarettes anymore
- Inhaled the pipe smoke from outset
- 3-5 bowls of pipe tobacco per day

- Multiple attempts to stop "cold turkey" never more than a day
- Tobacco abstinence with nicotine patch + bupropion but serious w/d symptoms – decreased mood, inability to concentrate, anxiety, and craving
- Relapsed during high stress at work
- Admitted for residential treatment

- A. Bupropion plus nicotine lozenge
- B. Nicotine patch plus nicotine lozenge
- C. Bupropion plus 21 mg nicotine patch plus nicotine gum
- D. 2 21 mg nicotine patches plus NNS

#### Day 2 - 3

- Persistent "anxiety" symptoms → ↑ patch dose to 2 - 21 mg patches
- PFT COPD
- Some improvement still has "anxiety" symptoms. NNS added for acute symptoms with good relief
- Baseline serum cotinine 516 ng/ml, steady state 265 ng/ml
- What next?

- A. ↑ patch dose to 3 21 mg patches + NNS and continue buproprion
- B. Add 4 mg nicotine lozenge
- C. Stay the course
- D. Add nicotine gum

- Anxiety with ↑ patch dose of 3 21 mg patches + NNS
- Steady improvement throughout his stay
- "I'll need something other than the spray for anxiety symptoms." "I can't pull out a white thing and squirt it up my nose during a board meeting"→ 4 mg nicotine gum add
- Dismissed on 3-21 mg nicotine patch dose + bupropion + ad lib nicotine gum and NNS for crises

## 27 y/o Pregnant RN

- 20 cpd x 14 years
- Stopped smoking with previous pregnancy
- Unable to stop with current pregnancy (12 wks)
- Withdrawal symptoms anxiety, impatience, craving
- PH major depression Paxil 10 mg/d
- Marital issues with husband and his recent Rx for alcoholism

## 27 y/o Pregnant RN (cont.)

- Outpatient counseling, 10 cpd,CO = 10 ppm
- 21 mg nicotine patch removed HS
- F/U ↓ craving, 2 cpd, CO = 4 ppm
- Outpatient group program, brief smoking abstinence
- 26 wks relapse to 20 cpd, restart nicotine patch

## 27 y/o Pregnant RN (cont.)

- Residential Treatment Program, 10 cpd, CO = 12 ppm
- Cotinine 93 ng/ml, Rx 21 mg nicotine patch
- Cravings present despite milieu and nicotine patch → add nicotine inhaler
- ↓ cravings
- Steady state cotinine 118 ng/ml

## 27 y/o Pregnant RN (cont.)

- Apprehensive at dismissal from residential
- Continue 21 mg nicotine patch and nicotine inhaler for ad lib use
- Abstinent at F/Us with COs of 1-2 ppm
- Delivered healthy baby boy (7 lb 14 oz)
- Abstinent at F/U, ↓ patch over several weeks

## 50 y/o man with Buerger's Disease

- Started smoking as a teenager
- 1987 Non-healing toe ulcerations
   30 CPD
  - Dx Buerger's Disease
- 1988 Thoracic Sympathectomy
- 1989 Amputation, right 5<sup>th</sup> toe
   Auto amputation, right thumb
   Stopped smoking (5 years)
- 2000 Hazelden Alcohol/drug Dependence Treatment

## 50 y/o man with Buerger's Disease (cont.)

- 2002 Residential Treatment at NDC (20 CPD)
- Ulcerations right heel & right lateral malleoulus
- "Like someone pounding nails in my leg and foot"
- Bupropion started before admission
- Nicotine patch therapy at 35 mg/d



## 50 y/o man with Buerger's Disease (cont.)

- Reluctant to use two patches
- Baseline serum cotinine 300 ng/mL
- Steady state cotinine 188 ng/mL on 21 mg/d patch
- Eventually ↑ patch dose to 35 mg and then to 42 mg/d → much improved – less withdrawal



## 50 y/o man with Buerger's Disease (cont.)

- Post Residential Treatment
- Continued 42 mg/d nicotine patch dose for 6 weeks then slowly tapered
- Continued bupropion for 2 years
- Panelist at our Conference May 2010
- Still abstinent from smoking

