Tobacco in Institutional Settings

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What is the Big Deal about Tobacco Use?

• Tobacco use remains the number one preventable cause of illness and death in our society!

• Tobacco kills twice as many people as vehicle crashes, alcohol, suicide, homicide and HIV combined!

• It’s the only legal product that kills 1 in every 2 people when used as intended!
Smoking is the Leading Preventable Cause of Disease & Death in Canada

**Cardiovascular**
- Ischemic heart disease (#2)
- Stroke – Vascular dementia
- Peripheral vascular disease
- Abdominal aortic aneurysm

**Respiratory**
- COPD (#3)
- Pneumonia
- Poor asthma control

**Reproductive**
- Low birthweight
- Pregnancy complications
- Reduced fertility
- SIDS

**Other**
- Adverse surgical outcomes/
  wound healing
- Hip fractures
- Low bone density
- Cataract
- Peptic ulcer disease

**Cancer**
- Lung (#1)
  - Oral cavity/pharynx
  - Laryngeal
  - Esophageal
  - Stomach
  - Pancreatic
  - Kidney
  - Bladder
  - Cervical
  - Leukemia

**Active Smoking**
Tobacco Dependence
a chronic relapsing disorder

- Tobacco dependence requires ongoing care rather than acute care

- Relapse is a component of the chronic nature of the nicotine dependence — not an indication of personal failure by the patient or the clinician
ADDICTION
Understanding Tobacco Addiction

• Brain Chemistry
  – Seconds after nicotine is inhaled in the lungs, the brain receives a hit of nicotine. This “hit” improves attention, mood and relieves cravings. Within 1 ½ to 2 hours, the body metabolizes nicotine and then most smokers feel the need to replace the drug.

• Behavioural Conditioning
  – A stimulus (eg a stress) causes a response (lighting a cigarette) which provokes a consequence (decreased stress, pleasure.) Since the consequence is positive, the behaviour continues.
Provider Overview

BRAIN STEM

$\alpha_4\beta_2$ receptors

FOREBRAIN

Dopamine

BRAIN STEM

$\alpha_4\beta_2$ receptors
Nicotinic receptors

- Nicotinic acetylcholine receptors (nAChRs)
  - Nicotine binding releases neurotransmitters
  - Repeated doses cause increase of receptor numbers
- 4 main functional receptors subtypes: $\alpha_4\beta_2$, $\alpha_3\beta_4$, $\alpha_3\beta_2$ and $\alpha_7$

$\alpha_4\beta_2$ receptor mediates the dependence effects of nicotine
A Drug Delivery Device
A Day in the Life of Blood Nicotine

Plasma Nicotine (ng/ml)

Subject smoking 1 cigarette per hour
Transdermal patch. Blood levels will vary with dosage and type of patch 21 mg, 24 hour
4mg chewing pieces (peak at 12 ng) drops to 0 at 6 am
Comfort zone for nicotine dependent smoker
Why is this important in Residential care?

Residents = Quality of life issue

Policy

– Province of BC Tobacco Control Act
– VCH Smoke Free Properties policy
– Worksafe BC – there is no safe level of exposure to Second hand smoke
Transforming Professional Practice
Straightforward
Systematic
Standardized

There is a need to ensure that cessation efforts are coordinated, systematized and integrated into all professional practice settings.
VCH/PHC Clinical Smoking Cessation Program is based on The University of Heart Institute’s Ottawa Model

1. Identification
2. Documentation
3. Strategic Advice
4. Treatment
   - Counselling
   - Pharmacotherapy
5. Long-term Follow-up
Standard of Care

- Identify/screen upon admission/intake
  “Every Intake/Every Time”
- Manage nicotine withdrawal (pharmacotherapy)
- Education/counselling (resident & family)
The Power of a Brief Intervention

- Ask
- Advise
- Assess
- Assist
- Arrange

ACT
What is the Evidence?

- Smoking cessation interventions delivered by multiple types of health care providers (e.g., dentists, nurses, psychologists, social workers) markedly increase cessation rates compared with interventions where no provider intervenes (e.g., self-administered interventions).

- Minimal interventions lasting less than 3 minutes increase overall tobacco abstinence rates.

- There is a strong dose-response relationship between the session length of person-to-person contact and successful treatment. Intensive interventions are more effective and should be used wherever possible.

The PHS Guideline: Strength of Evidence = A
Brief Interventions - “Basics”

• Ask and document on all patients / clients

• Provide support options
  » Pharmacotherapy
  » Counselling (personal/group)
Keys to Success

- Clear communication
- Staff engagement, education & buy-in
  - Withdrawal management vs cessation
- Follow up
- Consistency
- Support
- Resources
Pharmacotherapy
Smoking Cessation Supports

• Support improves chances of success!
  • No support  5-11%
  • Use of pharmacotherapy  10-22%
  • Pharmacotherapy and counselling  30-40%

• NRTs & Prescription Smoking Cessation Drugs
  • BC Smoking Cessation Program
  • Health Canada : Non-Insured Health Benefits (NIHB)

• QuitNow Services
  • QuitNow by Phone
  • QuitNow Online & QuitNow by Text
Two types of smoking cessation aids:

1. Nicotine replacement therapy (*non-prescription*)
   - Nicotine patch (*Habitrol®*)
   - Nicotine gum (*Thrive™*)

2. Stop smoking medication (*prescription*)
   - Bupropion (*Zyban®*)
   - Varenicline (*Champix®*)
Thank-you!

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