



Early Brain and Biological Development and Addiction, UME

Podcast Series:

INTRODUCTION

- 1 The Neuro-
Developmental Pathway
Origins of Addiction

CORE CONCEPTS OF EARLY CHILD DEVELOPMENT

- 2 Brain Architecture and
Development
- 3 Early Experiences and
Gene Expression
- 4 Building Cognitive
Emotional and Social
Capacities
- 5 Positive, Tolerable and
Toxic Stress
- 6 Brain Plasticity and
Behavioural Change
- 7 Intervention and
Treatment in Children's
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ADDICTION

- 8 Different Kinds of
Addiction
- 9 **Prevention, Intervention
and Treatment of
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- 10 Early Trauma in
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- 11 Chronic Disease
Management Model of
Addiction Treatment: A
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on AFMC.ca



PODCAST 9: Prevention, Intervention and Treatment of Addiction

STUDY GUIDE | Run time 19:24, Released September 2012

Podcast 9, *Prevention, Intervention and Treatment of Addiction*, highlights the fact that addiction is a chronic, relapsing brain disease and that, if its treatment is to achieve lasting success, it must be comprehensive and address the individual as a whole. The podcast describes the chronic disease management model of care and explains how a number of its principles can be applied in effective addiction intervention. It also describes the design and characteristics of a successful Physician Health Program. The podcast series has been designed to offer a quick introduction to the subject of early brain and biological development and its connection to addiction. Each podcast links specific medical learning objectives with emerging research. Several podcasts also follow the story of Dr. Ray Baker, a physician who has struggled with addiction, to help illustrate the key concepts addressed.

The Association of Faculties of Medicine of Canada (AFMC) created the podcast series based on lectures from the Alberta Family Wellness Initiative, a knowledge mobilization initiative designed to translate scientific research into policy and practice. The lectures have been repurposed, with permission, for undergraduate medical education. Supplementary resources, including virtual patients and a Primer on the Neurobiology of Addiction, are also available on www.afmc.ca.

Learning Objectives:

Once you have listened to this podcast, you should be able to:

- Describe the chronic disease management model and explain how a number of its principles can be applied in effective addiction intervention
- Understand that addiction is a chronic, relapsing brain disease and that if its treatment is to achieve lasting success it must be comprehensive and address the individual as a whole
- Describe the design and characteristics of a successful Physician Health Program
- Recognize that Physician Health Programs share many conceptual and operational practices with the chronic disease management model

Featured Subject Matter Experts:

This podcast features excerpts from the following lectures:

- [Physician Health Programs](#)
Dr. Michael Kaufmann, Director of the Physician Health Program, Ontario Medical Association; Dr. Dianne Maier, Program and Clinical Director, Physician and Family Support Program, Alberta Medical Association
- [Principles of Chronic Disease Management](#)
Dr. Richard Lewanczuk, Professor in the Department of Medicine, Alberta Health Services and University of Alberta
- [Effectiveness, Quality and Performance](#)
Dr. Thomas McLellan, Director, Center on Substance Abuse Solutions, University of Pennsylvania

Listeners are encouraged to learn more about the subject matter through their interactions with patients, research and by checking out the AFWI lecture series available at www.albertafamilywellness.org.

PHYSICIAN HEALTH PROGRAM, addiction,
Chronic Disease Management Model, treatment, Care



Key Learning Points:

- Addiction is a chronic, relapsing brain disease, and effective interventions include a holistic treatment plan
- Principles of the chronic disease management model that can be applied in effective addiction intervention include patient education, support programs, promotion of a healthy lifestyle and relapse prevention
- A successful Physician Health Program includes case monitoring, education, support and family engagement
- Physician Health Programs share many conceptual and operational practices with the chronic disease management model, such as treating an entire population, relying on primary care providers and focusing on continuity of care

Reflective Questions:

1. What elements of chronic disease management would you be able to apply in your program or practice when developing a management plan for a patient with addiction?
2. How do you think practising physicians should support their patients in the long-term management of and the follow-up for the successful treatment of addiction?

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Preparing for your exams...

Medical Council of Canada (MCC) Objectives for the Qualifying Examination (excerpt):

103 ADDICTIONS/SUBSTANCE ABUSE **Rationale:** Addiction may be to substances or may be a process (behavioral) addiction. Alcohol and nicotine abuse are such common conditions that virtually every clinician is confronted with their complications. Addiction to prescription drugs and to other substances is prevalent in all communities and is a common cause of medical morbidity and mortality.

Causal conditions: 1. Substance use: a. Stimulants, b. Depressants, c. Other substance; 2. Process (behavioral) addictions (e.g., gambling); 3. Adverse childhood or traumatic experiences; 4. Epigenetic changes **Key objectives:** Given a patient with an addiction or a substance abuse problem, the candidate will be able to identify the issue, potential consequences and the need to provide immediate and continuing support and intervention. (Source: [MCC Objectives for the Qualifying Examination: 103 Addictions/Substance Abuse](#))

Other relevant objectives:

[78-4 ADMINISTRATION OF EFFECTIVE HEALTH PROGRAMS AT THE POPULATION LEVEL: POPULATION HEALTH](#)

CanMEDS-FMU Undergraduate Competencies from a Family Medicine Perspective

(excerpt):

1. THE FAMILY MEDICINE EXPERT

1.1. The learner will be able to describe how illness presents differently in the family medicine setting compared to other specialist settings and demonstrate an approach to the diagnosis and management of undifferentiated patient problems that present to family physicians.

1.7. The learner will be able to identify what health-promotion and disease-prevention activities are appropriate to particular populations using evidence-based guidelines.

1.13. The learner will appreciate the value of continuity of care for developing a deep knowledge of patients. (Source: *CanMEDS-FMU Undergraduate Competencies from a Family Medicine Perspective: 1. The Family Medicine Expert*)