A New Reality, a New Way: Treating major depression and alcohol dependence together
Welcome

With us today:

Host
Erin Leith
Director, Education & Training
CFHI

Dr. Andriy V. Samokhvalov
Psychiatrist/Clinician-Scientist, CAMH

Saima Awan
Director, Integrated Care Pathways Program, CAMH

Tracey MacArthur
Senior Vice President and Chief Clinical Officer, CAMH
On today’s call...

✔ Why care pathways are so effective in improving coordination of care for complex and at-risk populations.

✔ How the DA VINCI approach can be adapted in various health settings, why it’s resonating with providers and patients, and how staff are being trained.

✔ How this successful interdisciplinary partnership model is spreading across Ontario, and improving the care experience and health outcomes for clients and families.
Canada’s leading mental health teaching hospital

- Leader in clinical care
  - Complex mental illness
  - Children & Youth
  - Seniors
  - Addictions
- World renowned research
- Education destination
- Provincial partner
  - Advocacy
  - Evidence-based public policy
  - System building
### Numbers

**Clients**
- **Unique clients:** 26,287
- **Unique clients by gender:**
  - Male: 54.3%
  - Female: 44.9%
  - Transgender, transgender, unknown: 0.5%
- **Outpatient visits:** 476,457
- **Inpatient admissions:** 4,289
- **Visits to Emergency Services:** 6,588
- **Average length of stay in days:** 49.3

*Unique: individual people who received care, regardless of number of visits*

### Primary Diagnosis of Unique Inpatient Clients, 2012-2013

- Schizophrenia and other psychotic disorders (31.2%)
- Substance use disorders (29.9%)
- Mood disorders (29.4%)
- Anxiety disorders (2.3%)
- Personality disorders (2.1%)
- Delirium, dementia and other cognitive disorders (0.9%)
- Other (3.1%)

**NOTE:**
- 42.5% of inpatients had more than 1 diagnosis
- 31.1% of inpatients had 2 diagnoses
- 11.2% of inpatients had 3 diagnoses

### Staff and Research
- **CAMH staff:** 2,886
- **CAMH physicians:** 375 (includes 7 nurse practitioners)
- **Research grants/contracts:** 265
- **Annual research funding awarded:** $18,007,240

### Information/Education

- Visits to [www.camh.ca](http://www.camh.ca): 2,314,956
- Participants in professional training and public education events: 76,458

### Distribution of Patients by LHINs, 2012-2013
1. Enhance recovery by improving access to integrated care/social support
2. Earn a reputation for service, accountability and professional leadership
3. Build an environment that supports recovery
4. Ignite discovery and innovation
5. Revolutionize education and knowledge exchange
6. Drive social change
Integrated Care Pathways (ICPs) at CAMH
Beginning in 2013

Create the Platform around improving patient care and align with Vision 2020

1. Enhance recovery by improving access to integrated care and social support.
2. Earn a reputation for outstanding service, accountability and professional leadership
3. Ignite discovery and innovation
4. Revolutionize education and knowledge exchange

Review Evidence:
European Care Pathways Conference 2013
The Adopting Research to Improve Care (ARTIC) Program is a proven model for accelerating the implementation of research evidence into broader practice, contributing to improving the quality of care across Ontario.

The ARTIC Program’s model of supporting and accelerating the use of proven evidence means we’re able to implement change and improve patient care a lot faster – within 2 years, instead of 17.

By facilitating the implementation of evidence quickly and efficiently, patients receive the highest quality care, faster.

It is a continuing partnership co-led by Health Quality Ontario (HQO) and the Council of Academic Hospitals of Ontario (CAHO), and brought to life through the Program’s engagement with a wide array of system partners.

The DA VINCI project is supported by ARTIC Program funding.

The overarching theme of recent calls for ARTIC projects is improving integration of care. One of the reasons the DA VINCI project was selected is because it addresses this theme.
Build the Implementation Machine

Drive the Machine with a Central Resource

Fuel it with Expertise, Time and Investment
Integrated Care Pathways

- Definition: Integrated Care Pathway (ICP) is a multidisciplinary outline of anticipated care, placed in an appropriate timeframe to help patients move progressively through a clinical experience to positive outcomes.

- Operationalization at CAMH:
  - Clear definition of a treatment population
  - Description of the desired outcomes and outcome measures
  - Treatment algorithm and decision-making process
  - Roles and responsibilities of the team members

- In the past 2 years CAMH has successfully developed and implemented 9 integrated care pathways for specific conditions and patient groups
Why Major Depression and Alcohol Dependence?

- Both conditions are common at CAMH
- Physicians are comfortable treating each of them separately, but rarely address them simultaneously

No established treatment for concurrent MDD and AD:
- Not clear which program should treat them
- Should treatment be sequential or simultaneous?
- Should psychotherapy and medications be used simultaneously?
- Which medications should be chosen?
- Etc.
Population survey data

- 2012 Canadian Community Health Survey Data

- Alcohol Use Disorder:
  - Lifetime prevalence: 18.1%
  - 12-month prevalence: 3.2%

- Major Depressive Episode:
  - Lifetime prevalence: 11.5%
  - 12-month prevalence: 4.8%

Source: Statistics Canada, Canadian Community Health Survey - Mental Health (CCHS), 2012;
Comorbidity Data

- **Individual disorders:**
  - Alcohol dependence (AD): 2.6%
  - Major depressive disorder (MDD): 4.0%

- **Comorbid disorders:**
  - Alcohol dependence / MDD: 5.8%
  - Major depressive disorder / AD: 8.8%

*12-month prevalence Source: Currie et al., 2005*
Socioeconomic burden

- Global burden of disease (GBD) study:
  - Alcohol is the third leading contributor to global burden of disease
  - Alcohol is a contributing factor to over 80 medical conditions

- GBD Substance use and mental disorders:
  - Depressive disorders account for 40.5% of DALYs
  - Alcohol use disorders account for 9.5% of DALYs (vs. 10.5% for all illicit substances)

- Canadian data:
  - Appx. 37% of all socioeconomic burden ($CAD 40 bil/year) attributable to all substances is due to alcohol
  - Appx. 4000 alcohol-attributable deaths per year
CAMH Clinical Data

- Majority (85%) of alcohol-dependent patients at CAMH have depressive symptoms
- Severity of depressive symptoms in 61% of alcohol-dependent patients at CAMH is moderate or higher
Summary of considerations

- High prevalence of both disorders
- High comorbidity between two conditions
- Established causal links between MDD and AD
- Under treatment of MDD in patients with AD and AD in patients with MDD
- Low treatment retention and poor treatment outcomes
- Evidence of effectiveness of combined use of anti-craving medications and anti-depressants
- Evidence of effectiveness of combined psychotherapy and pharmacotherapy
ICP MDAD Team

Nurse
Admin. staff
Physician
Pharmacist
Psychologist / Therapist

CLIENT
Pharmacotherapy algorithm:
Justification

From Pettinati et al, Am J Psychiatry, 2010
Pharmacotherapy algorithm: Details

- Pharmacotherapy for Major Depressive Disorder:
  First choice. Sertraline Max dose 200 mg/day
  Second choice:
    Fluoxetine: Max dose 80 mg/day
    Venlafaxine XR: Max dose 375 mg/day
    Mirtazapine: Max dose 60 mg/day

- Pharmacotherapy for Alcohol Dependence:
  First choice. Naltrexone: Max dose 50 mg/day
  Second choice:
    Acamprosate: 666 mg TID
    Topiramate: Max dose 300 mg/day
Psychotherapy manual

Session: 1-2
Introduction & motivational enhancement

Session: 3-5
Behavioural Focus: Behavioural Activation + Skills Building for High-Risk Situations

Session: 6-10
Cognitive focus: Cognitive Restructuring, Maladaptive Assumptions, Problem Solving, Action Planning

Session: 11-12
Relapse Prevention
Lapse Management

Session: 13-15
Optional Topics:
- DBT skills building
- Building social supports
- Behavioural Chain analysis for relapse
Early Outcomes

ICP cohort:
- 37 patients
- Data collected prospectively
  - Patterns of drinking (SD/w, SW/DD, DD/w, HDD/w)
  - Depressive symptoms (BDI, QIDS)
  - Severity of cravings (PACS)
  - Retention rate (%)

Historical controls (HC):
- 92 patients of addiction medicine service who were seen for AUD with moderate depressive symptoms or higher
- Data collected retrospectively:
  - Retention rate (%)
# Retention rates in ICP and HC cohorts

<table>
<thead>
<tr>
<th></th>
<th>4 weeks</th>
<th>8 weeks</th>
<th>12 weeks</th>
<th>16 weeks</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>ICP</strong></td>
<td>93.8%</td>
<td>90.6%</td>
<td>84.4%</td>
<td>81.3%</td>
</tr>
<tr>
<td><strong>HC</strong></td>
<td>50.0%</td>
<td>34.8%</td>
<td>28.3%</td>
<td>21.7%</td>
</tr>
</tbody>
</table>

![Retention rates bar chart]

- **ICP** retention rates are consistently higher than those of **HC** at each time point (4 weeks, 8 weeks, 12 weeks, 16 weeks).
- The retention rates for both cohorts decrease over time, indicating a higher attrition rate in **HC** compared to **ICP**.
Severity of depressive symptoms

<table>
<thead>
<tr>
<th></th>
<th>Baseline</th>
<th>Week 2</th>
<th>Week 4</th>
<th>Week 6</th>
<th>Week 8</th>
<th>Week 10</th>
<th>Week 12</th>
<th>Week 14</th>
<th>Week 16</th>
</tr>
</thead>
<tbody>
<tr>
<td>QIDS</td>
<td>15.0</td>
<td>12.8</td>
<td>13.8</td>
<td>12.9</td>
<td>12.5</td>
<td>11.0</td>
<td>10.9</td>
<td>10.3</td>
<td>10.4</td>
</tr>
<tr>
<td>BDI</td>
<td>28.1</td>
<td>22.4</td>
<td>21.8</td>
<td>20.8</td>
<td>20.9</td>
<td>19.8</td>
<td>17.5</td>
<td>18.0</td>
<td>18.3</td>
</tr>
</tbody>
</table>
Severity of cravings

Baseline | Week 2 | Week 4 | Week 6 | Week 8 | Week 10 | Week 12 | Week 14 | Week 16
---|---|---|---|---|---|---|---|---
PACS | 15.5 | 14.2 | 15.9 | 15.2 | 15.4 | 12.9 | 14.4 | 12.6 | 12.9
Changes in alcohol consumption

<table>
<thead>
<tr>
<th></th>
<th>Baseline</th>
<th>Week 2</th>
<th>Week 4</th>
<th>Week 6</th>
<th>Week 8</th>
<th>Week 10</th>
<th>Week 12</th>
<th>Week 14</th>
<th>Week 16</th>
</tr>
</thead>
<tbody>
<tr>
<td>HDD/w</td>
<td>2.6</td>
<td>2.5</td>
<td>2.0</td>
<td>2.0</td>
<td>1.7</td>
<td>1.7</td>
<td>1.0</td>
<td>1.0</td>
<td>1.0</td>
</tr>
<tr>
<td>SD/DD</td>
<td>3.2</td>
<td>3.1</td>
<td>3.0</td>
<td>3.0</td>
<td>2.6</td>
<td>2.7</td>
<td>2.6</td>
<td>2.6</td>
<td>2.2</td>
</tr>
</tbody>
</table>
The Client Experience

- Many patients get to feel that they are part of something special
  - The team reinforces this and encourages clients to make the “most of it”
  - The team feel the same way!

- The team forms an alliance with the patient
  - We create sense that we are working together to optimize outcomes

- We know the patient and the patient knows us
  - E.g. we interact with the patient even if they are not seeing us on that day
  - Occasionally the patient will advise the team members that they have certain issues that are to be addressed by the team.
  - Information is shared during weekly team huddles
  - Patients usually do attend the sessions because they feel that they are part of a team
Client Satisfaction Questionnaire

- Every patient was satisfied with the care overall:
  - 47.1% - satisfied,
  - 52.9% - very satisfied

- Symptoms improvement in 94.1% of pts for both MDD and AUD
  - Significant improvement of MDD symptoms in 64.7%
  - Significant improvement in drinking patterns in 82.3%

- All patients stated that the ICP changed their life in a positive way

- All patients would recommend the ICP to a friend
Early impressions

- The ICP is a feasible approach to treatment of concurrent Major Depressive Disorder and Alcohol Dependence with significantly higher retention rates than treatment as usual.

- Patients demonstrate improvements on several levels including depressive symptoms, and changes in alcohol drinking patterns.

- The project achieved its objectives and demonstrated that the ICP model represents a promising treatment approach that can be recommended for broader implementation.
The DA VINCI Project

- DA VINCI stands for Depression & Alcoholism: Validation of an Integrated Care Initiative

- GOAL
  - To support and accelerate the implementation of the Integrated Care Pathway for Major Depressive Disorder and Alcohol Dependence (ICP)
  - To provide increased access to treatment for concurrent disorders, improve integration of care and to ensure high quality patient-centered care.
DA VINCI Key Objectives

- Implementation: To implement the DA VINCI pathway at a variety of designated clinical sites across the province taking into consideration their unique parameters

- Access: To improve access to evidence-based treatment for concurrent disorders

- Integration: To increase the coordination of care and integration of novel treatment approaches into clinical practice

- Effectiveness: To increase the effectiveness of treatment for concurrent disorders

- Patient-centredness: To achieve high level of patient satisfaction
DA VINCI Project Reach

**Academic Health Science Centre**
- Centre for Addiction and Mental Health (CAMH)
- University Health Network (UHN)
- Royal Ottawa Mental Health Centre

**Community Hospital**
- North Bay Regional Health Centre
- Trillium Health Partners
- William Osler Health System

**Family Health Team**
- Village Family Health Team
- Inner City Family Health Team
- Hamilton Family Health Team
DA VINCI IMPLEMENTATION PLAN:

**Exploration**
- Readiness Assessment
- Current State Analysis
- Gap Analysis (resources and clinical needs for treatment)

**Installation**
- Developing communication structures
- Process redesign
- Clinical Team
- Developing Practitioner Competency on the ICP

**Initial Implementation**
- Pilot implementation
- Continuous Improvement and Rapid PDSA cycles
- Initial Evaluation: Data collection and report back

**Full Implementation**
- Focus on sustainability
- Further evaluation
- Tools, education materials, other resources and roadmap for further implementation
Adaptability for health system improvement

Elements of Integrated Care Pathway
- Evidence informed
- Specific medication algorithm
- Manualized psychotherapy intervention (i.e. CBT)
- Measurement based care

Models of care:
- Individual therapy
- Group therapy
- Solo practitioner model

Various clinical settings:
- Academic Health Science Centre
- Community Hospitals
- Family Health Teams

Prescribers can include:
- Psychiatrists
- General Practitioners
- Addiction Medicine
- Nurse Practitioners
DA VINCI → North Bay Regional Health Centre

Key Learnings:

- Separate treatment streams for patients
  - Consultation with MDs (hospital location)
  - Psychotherapy - individual (downtown location)

Future state:

- Integrated the team – virtually through OTN team huddles
- Partnership with community agency to provide ‘case management’ to patients transitioning from DA VINCI
Community of Practices

• Portico site

• Monthly DA VINCI executive leads call

• Biweekly DA VINCI analysts call

• Biweekly DA VINCI therapists call

• *Future plans:* Utilize ECHO infrastructure
Portico is a network where you can connect with health care providers, clients, and families interested in mental health and addiction, brought together by CAMH in partnership with Bell. Portico offers clinical tools and evidence-based materials for health care providers, social service workers, and others.

Our private DA VINCI Portico network site is being created to facilitate the sharing of information and resources with our project sites across Ontario.
Community of Practice: Portico

Features
- Clinic information
- Medication and assessment guides
- News and updates
- Knowledge exchange and forums

Medication Information

The DA VINCI project utilizes antidepressant and anti-craving medications in combination with psychosocial interventions as part of the treatment for major depressive disorder and alcohol use disorder. Below you will find information on the medications used as part of the DA VINCI pharmacotherapy.

**Anti-Craving Medications:**
- Acamprosate
- Naltrexone
- Topiramate

**Antidepressant Medications:**
- Fluoxetine
- Mirtazapine
- Sertraline
- Venlafaxine

General information about antidepressants can be found here.
DA VINCI → Next Steps

• Focus on continuous evaluation

• Focus on sustainability

• Community of practices

• Meet the ongoing demand
Questions?

Please submit your questions/comments electronically using the “Chat Box” on the bottom of your webinar screen.

Veuillez nous transmettre vos questions ou vos commentaires à l'aide de la « boîte de dialogue » située au bas de l’écran de ce webinaire.
Upcoming webinars

• **September 28th** - The Power of Partnerships: patients and staff co-designing bedside care

• **October 6th** - Harkness and Healthcare: Canadian Harkness Fellowship 2017-2018

• **October 12th** - Mental Wellness Teams for Indigenous Communities

**Full Lineup:**
http://www.cfhi-fcass.ca/WhatWeDo/on-call/upcoming
Thank you!
Merci!