Considerations in the Care of People Who Use Stimulants

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These slides represent educational materials and are our own views and not those of our organization. This talk does not represent legal advice.

Presenter Disclosure

Presenter: Tanya Hauck

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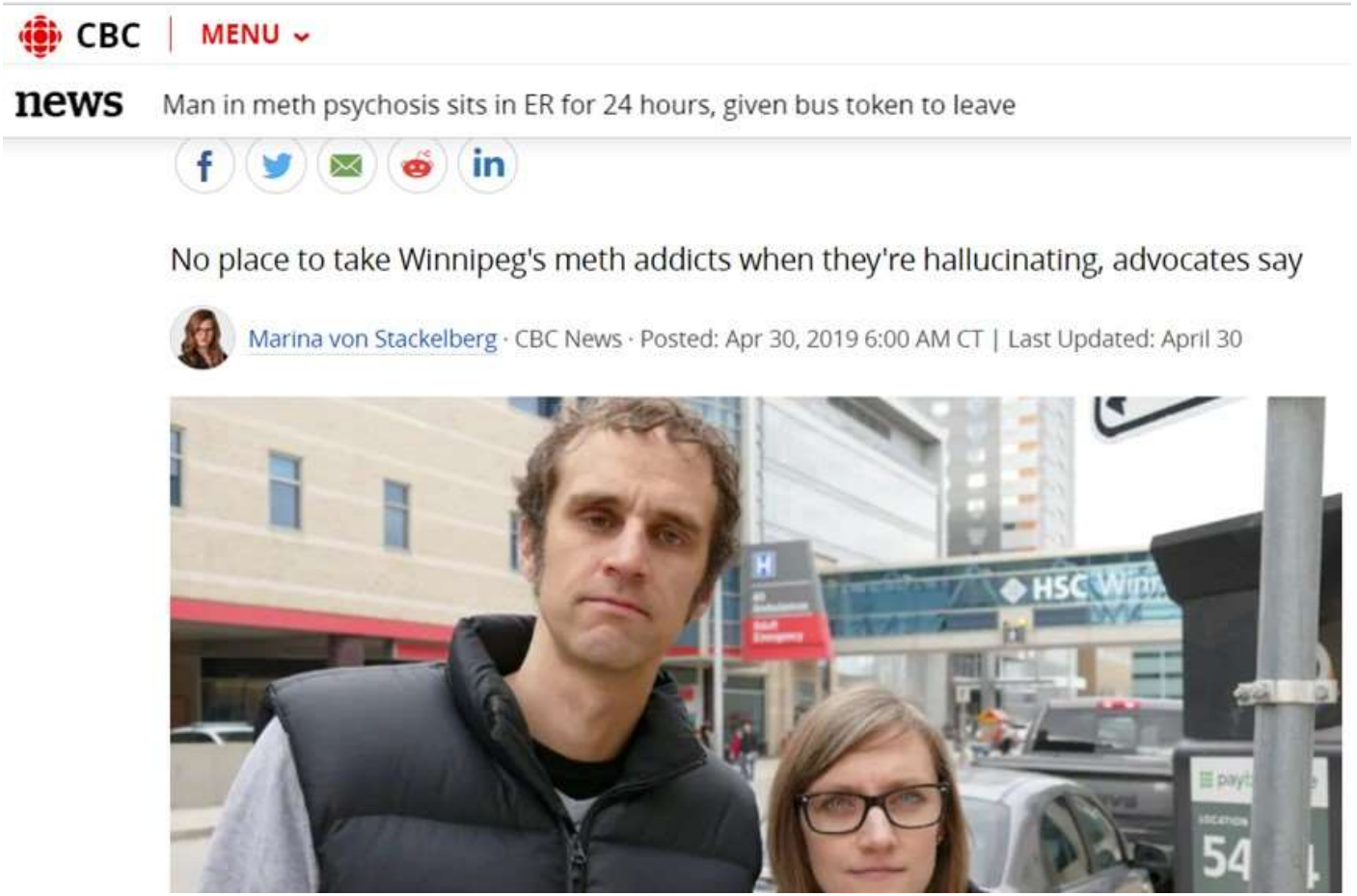
- Fellowship funding: Bellwood Health Services

Mitigating Potential Bias

We will discuss off-label pharmacotherapy treatments for stimulant use disorder and off-label treatments for stimulant-induced psychosis.

Case examples are composites of many different clinical scenarios and do not represent any specific person.



https://www.cbc.ca/news/canada/manitoba/hsc-meth-psychosis-1.5115291

Objectives

At the end of this session, participants will be able to do the following

1. To review and contrast pharmacological treatments for stimulant use disorder
2. To construct a treatment approach for stimulant use and stimulant-induced psychosis within RAAM clinics
3. To review relevant guidelines for the treatment of stimulant use disorder

1

Diagnosis and Epidemiology of SUD

“Fred”

You are working as a consultant to a RAAM clinic. A new patient Fred comes in with his friend seeking care, he is 28 and has been living in shelters for 2 years. He has been using fentanyl and would like to restart methadone. You assess him and discuss his options, and he starts 30 mg of methadone today. His friend says, “you should tell them about last year, you were in the psych ward” and he dismisses it. “Yeah, they said I had psychosis, I don’t remember that anyway, I was high. I’m ok now”. He is now living with his friend and appears organized during the assessment. You do not think he has any symptoms of psychosis. He does report he uses methamphetamine, “just sometimes, it’s not a big thing, when someone has it, I don’t pay for it”. He is happy to restart methadone and you refer him for counselling in the RAAM for PTSD. He wants to apply to residential treatment.

Fred returns for treatment for three weeks, continuing to increase his methadone dose. He is going to lose his ability to stay with his friend and asks to go to withdrawal management for a week. On discharge he says, “I feel a bit better off the meth, but I have bad cravings, you got anything for that?”.

Epidemiology

- Methamphetamine use was declining into the mid-2000s, but is increasing again.
- Amphetamine-type stimulants were prescribed widely in the 1950s and 1960s for mood and weight loss, and they were reclassified as scheduled drugs in the 1970s.
- Genetic component to use disorder, but multifactorial risk factors, polymorphisms in dopamine receptor and transporter

https://www.samhsa.gov/data/sites/default/files/reports/rpt39443/2021NSDUHFFRRev010323.pdf

Current users:

Methamphetamine: 0.3% of population (USA) in 2015 → 0.9% in 2021

Cocaine: 0.7% of population (USA) in 2015 → 1.7% in 2021 (past year use)

The "twindemic": between 2015 and 2017, methamphetamine use tripled among people using heroin (**9.0% to 30.2%**). (Strickland, 2019)

https://www.samhsa.gov/data/sites/default/files/NSDUH-FFR1-2015/NSDUH-FFR1-2015/NSDUH-FFR1-2015.pdf
https://www.samhsa.gov/data/sites/default/files/reports/rpt39443/2021NSDUHFFRRev010323.pdf

Stimulant use disorder (DSM5)

1. Larger amounts/longer period
2. Persistent desire/unsuccessful attempt to cut down
3. Significant time spent obtaining/using/recovering
4. Cravings/strong desire to use
5. Failure to fulfill role obligations (work, school, home)
6. Use despite social/interpersonal problems
7. Social/occupational/recreational activities given up
8. Recurrent use in hazardous situations
9. Use despite physical/psychological problems caused/exacerbated by alcohol
10. Tolerance
11. Withdrawal

>12 months

2-3=mild 4-5=moderate 6+=severe

Stimulant use disorder: Pharmacological treatment

"**Despite this clinical need, there is no well-established, broadly effective pharmacotherapy for stimulant use disorder.** Both clinical interest and scientific interest in pharmacological treatment continue to be stimulated by the often disappointingly low success rates and short duration of efficacy of current psychosocial treatments."

ASAM Principles of Addiction Medicine, 2019

Stimulant use disorder: Treatment

Antidepressants do not generally improve abstinence, although mirtazapine may be helpful for some clients, and adherence may be a barrier to treatment.

- **Sertraline**: may reduce retention and abstinence (Zorick, 2011)
- **Bupropion**: some benefit for methamphetamine use (4 RCTs, although no clear benefit), and it can also help ADHD (off-label), but it can be misused, snorted or injected, and it was more effective in non-daily users. (Härtel-Petri R et al, 2017)
- **Mirtazapine:** helpful for methamphetamine use disorder in several trials of men who have sex with men (Coflax 2011 and Coffin 2020), and first-line for major depressive disorder (Canmat, 2016) and second-line for PTSD (Katzman, 2014). However, medication adherence was low (around 40%). Mirtazapine also reduced sexual risk behaviours. At week 12, the risk reduction in methamphetamine-positive urine from mirtazapine was 0.67 [95% CI, 0.51-0.87] in the 2020 study. Likely does not help with retention in treatment (Naji 2022)

Serotonin syndrome risk is increased when antidepressants are combined with stimulants (which block serotonin reuptake).

Stimulant use disorder: Treatment

Antipsychotics are not recommended to treat the use disorder.

- "For atypical antipsychotics no positive recommendations can be made on achieving abstinence" (Härtel-Petri et al, 2017)
- Stimulant users are also potentially at higher risk of neuroleptic malignant syndrome due to depletion of dopamine, or movement disorders (ASAM 2019)
- Aripiprazole is a partial dopamine agonist, with a Health Canada warning regarding development of impulse control behaviours
- Aripiprazole has been shown to reduce cravings (but not abstinence), increase cravings or use (Tiihonen, 2007), or enhance the effects of the drug (Härtel-Petri et al, 2017)

Stimulant use disorder: Treatment

Anti-craving medications and topiramate may be helpful for some individuals.

Naltrexone *opioid antagonist, cannot be used with methadone or buprenorphine

- Benefits shown in a small trial, but data is limited (Härtel-Petri, 2017).
- Recent randomized controlled trial showed benefit in **combining naltrexone (IM) and bupropion (450 mg)** in methamphetamine use (Trivedi, 2021) with 13.6% response in treatment, compared to 2.5% with placebo.

Topiramate

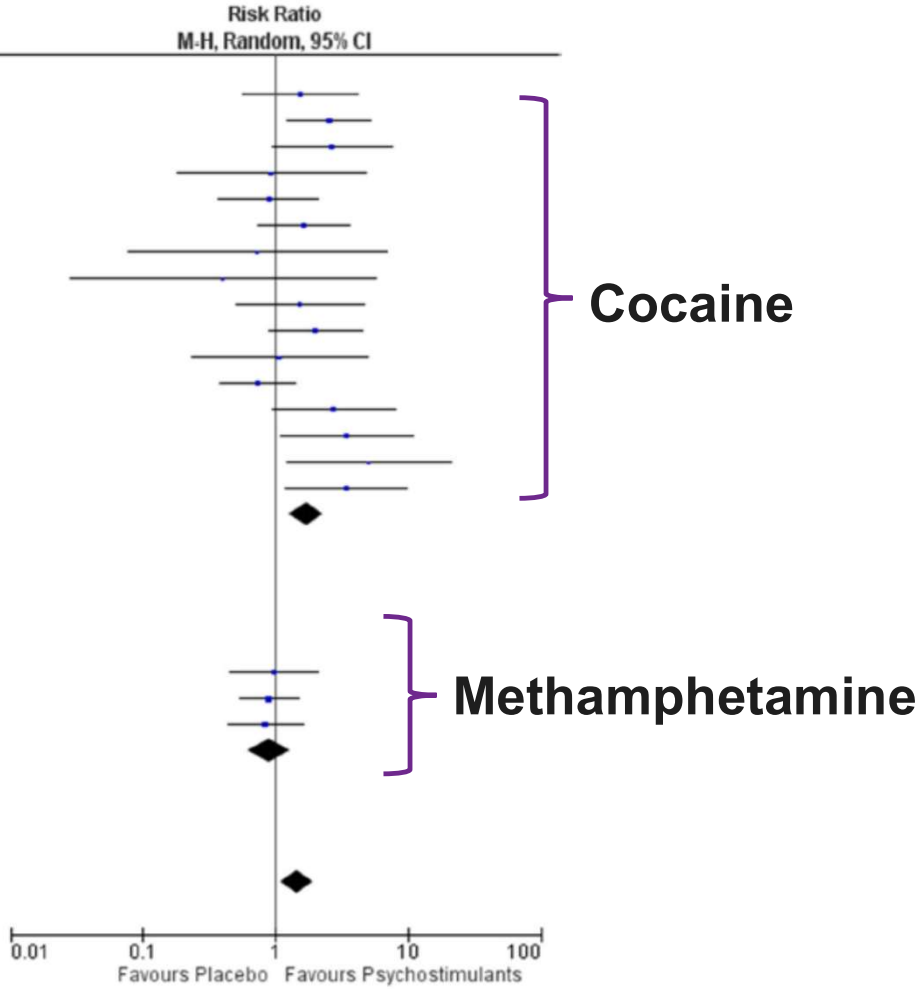
- Anticonvulsants have not demonstrated evidence for reducing stimulant use.
- Trials of topiramate have shown a benefit in abstinence over short periods, but not generally been helpful in methamphetamine (Härtel-Petri, 2017)
- Teratogenic risk must be considered

Substitution therapy with prescription stimulants

- May be helpful in withdrawal (Härtel-Petri et al, 2017), but not recommended in this review unless part of a trial
- **Castells, 2016 Cochrane review:**
  - 26 studies with 2366 participants
  - Bupropion, dexamphetamine, lisdexamfetamine, methylphenidate, modafinil, mazindol, methamphetamine, mixed amphetamine salts and selegiline were included
  - "Very low quality evidence that psychostimulants improved sustained cocaine abstinence (risk ratio (RR) 1.36, 95% confidence interval (CI) 1.05 to 1.77, P = 0.02), but they did not reduce cocaine use (standardised mean difference (SMD) 0.16, 95% CI −0.02 to 0.33) among participants who continued to use it."
  - "Psychostimulants did not improve retention in treatment (RR 1.00, 95% CI 0.93 to 1.06)."
  - Studies were generally small (Schmitz, 2012), with approximately 20 participants in each arm, and while they were blinded, it is not clear if that was successful in comparing amphetamine to placebo. In addition, it is not clear if these were observed or take-home doses
- **Tardelli, 2020 systematic review:**
  - Prescription amphetamines, in higher doses, may help cocaine use (in particular)
  - Prescription amphetamines do not improve retention in treatment
  - Extended-release formulations, under direct observation and daily dispensing, are recommended

Tardelli, 2020

Study or Subgroup	Psychostimulants Events	Total	Placebo Events	Total	Weight	Risk Ratio M-H, Random, 95% CI	Year
1.1.1 Cocaine							
Shearer 2003	7	16	4	14	5.2%	1.53 [0.56, 4.15]	2003
Grabowski 2004	24	54	7	40	7.4%	2.54 [1.22, 5.30]	2004
Dackis 2005	10	30	4	32	4.9%	2.67 [0.94, 7.60]	2005
Levin 2006	3	21	2	13	2.4%	0.93 [0.18, 4.84]	2006
Levin 2007	8	53	9	53	6.1%	0.89 [0.37, 2.13]	2007
Anderson 2009	22	138	7	72	6.8%	1.64 [0.74, 3.65]	2009
Schmitz 2012	2	22	1	8	1.4%	0.73 [0.08, 6.97]	2012
Schmitz 2012	1	20	1	8	1.0%	0.40 [0.03, 5.65]	2012
Dackis 2012	11	135	4	75	4.5%	1.53 [0.50, 4.63]	2012
Mariani 2012	13	39	7	42	6.7%	2.00 [0.89, 4.49]	2012
Dürsteler-MacFarland 2013	3	30	3	32	2.8%	1.07 [0.23, 4.88]	2013
Schmitz 2014	9	22	10	18	8.4%	0.74 [0.38, 1.41]	2014
Kampman 2015	11	47	4	47	4.7%	2.75 [0.94, 8.02]	2015
Levin 2015	20	83	3	43	4.2%	3.45 [1.09, 10.98]	2015
Nuijten 2016	11	38	2	35	3.0%	5.07 [1.21, 21.27]	2016
Levin 2019	14	64	4	63	4.8%	3.45 [1.20, 9.90]	2018
Subtotal (95% CI)		**812**		**595**	**74.4%**	**1.70 [1.26, 2.31]**	
Total events	169		72				
Heterogeneity: Tau² = 0.09; Chi² = 19.85, df = 15 (P = 0.18); I² = 24%							
Test for overall effect: Z = 3.44 (P = 0.0006)							
1.1.2 Meth							
Heinzerling 2010	9	34	10	37	7.1%	0.98 [0.45, 2.12]	2010
Konstenius 2010	8	12	9	12	10.1%	0.89 [0.53, 1.49]	2010
Anderson 2012	21	142	12	68	8.4%	0.84 [0.44, 1.60]	2012
Subtotal (95% CI)		**188**		**117**	**25.6%**	**0.89 [0.62, 1.27]**	
Total events	38		31				
Heterogeneity: Tau² = 0.00; Chi² = 0.09, df = 2 (P = 0.95); I² = 0%							
Test for overall effect: Z = 0.63 (P = 0.53)							
Total (95% CI)		**1000**		**712**	**100.0%**	**1.45 [1.10, 1.92]**	
Total events	207		103				
Heterogeneity: Tau² = 0.13; Chi² = 28.77, df = 18 (P = 0.05); I² = 37%							
Test for overall effect: Z = 2.61 (P = 0.009)							
Test for subgroup differences: Chi² = 7.32, df = 1 (P = 0.007), I² = 86.3%							



Substitution therapy with prescription stimulants

Nuijten, 2016:

Study population: "population of patients currently receiving oral methadone plus inhalable or injectable diacetylmorphine for their concurrent heroin dependence in supervised heroin-assisted treatment programmes in two treatment centres in Amsterdam, one in Rotterdam, and one in The Hague"

- Target substance was crack **cocaine**
- 60 mg/day oral sustained-release **dexamfetamine**
- Randomization and blinding described
- Doses were **supervised**
- 29% of dexamphetamine group, compared to 6% of placebo, had consecutive cocaine abstinence in final 21 days of the trial
- Patients were excluded in case of (1) severe medical problems (eg, electrocardiography or blood abnormalities) or severe psychiatric problems (eg, **acute psychosis** or suicidality);

Substitution therapy with prescription stimulants

Heikkinen, 2023:

Study population: cohort study from Sweden, ages 16-64, diagnosed with amphetamine or methamphetamine use disorder **"and without previous diagnoses of schizophrenia or bipolar disorder"**

- Various medications were studied as exposures
- Included ADHD medications, mood stabilizers, antidepressants, benzodiazepines, antipsychotics
- Vyvanse (lisdexamphetamine) was associated with a decrease in hospitalizations due to SUD, any hospitalization or death:

0.82; 95%CI, 0.72-0.94 for SUD hospitalization;

0.86; 95%CI, 0.78-0.95 for any hospitalization or death

0.43; 95%CI, 0.24-0.77 for all-cause mortality

- Benzodiazepine use was associated with worse outcomes
- Psychiatric hospitalization was not included as a covariate

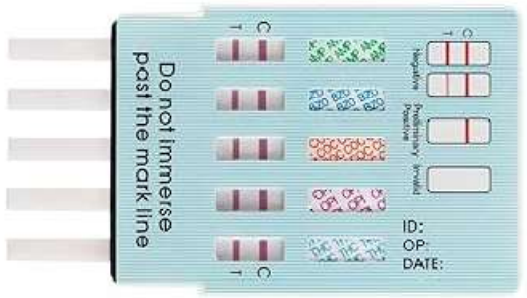
ASAM/AAAP Stimulant Use Disorder Guidelines, 2023:

"Psychostimulant medications should only be prescribed to treat StUD by:

- ❑ physician specialists who are board certified in addiction medicine or addiction psychiatry; and
- ❑ physicians with commensurate training, competencies, and capacity for close patient monitoring."

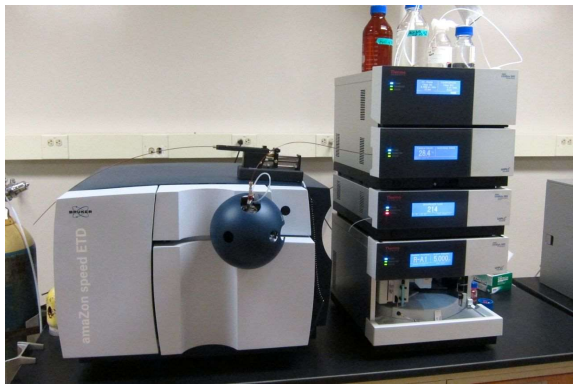
A Note about Urine Testing

Immunoassay



- Fast → results in hours
- Only the listed drugs are tested → false negatives
- Antigen-antibody testing → false positives
- Some drugs are not detected unless at high concentration (clonazepam)

Comprehensive



- Slow → results in a week
- All molecules in the library can be correctly identified
- Not all designer drugs are in all libraries
- Pharmaceuticals are also identified e.g. compliance with olanzapine that is prescribed

Stimulant Intoxication and Withdrawal (DSM5)

Intoxication	Withdrawal
Pupillary dilation Tachycardia or bradycardia Hypertension or hypotension Nausea or vomiting Perspiration/chills Weight loss Psychomotor agitation/retardation Muscular weakness, respiratory depression, cardiac arrythmia Confusion, seizures, dyskinesia, dystonia, coma	Fatigue Vivid, bad dreams Insomnia or hypersomnia Increased appetite Psychomotor agitation or retardation

Stimulant Intoxication and Withdrawal Management ASAM/AAAP Stimulant Use Disorder Guidelines, 2023:

- ❑ severe complications or psychosis requires an acute setting
- ❑ lower acuity settings are appropriate for responsive patients
- ❑ investigation: CBC, LFTs, CK, troponin (as appropriate)
- ❑ provide an appropriate environment with food, hydration, and **low stimulation**
- ❑ monitor for medical decompensation, delirium and agitation
- ❑ use verbal and nonverbal de-escalation
- ❑ **benzodiazepines** are considered first line for stimulant-induced agitation and/or confusion
- ❑ **psychosis should be treated with an antipsychotic**, e.g. olanzapine 5 mg TID prn for agitation
- ❑ avoid chlorpromazine and clozapine due to risk of seizures
- ❑ **monitor for worsening suicidality during withdrawal**
- ❑ hyperadrenergic states should be treated in an acute setting
- ❑ consider sleep problems and mirtazapine (unless history of bipolar disorder)

2

Treatment planning and psychosis

“Fred”

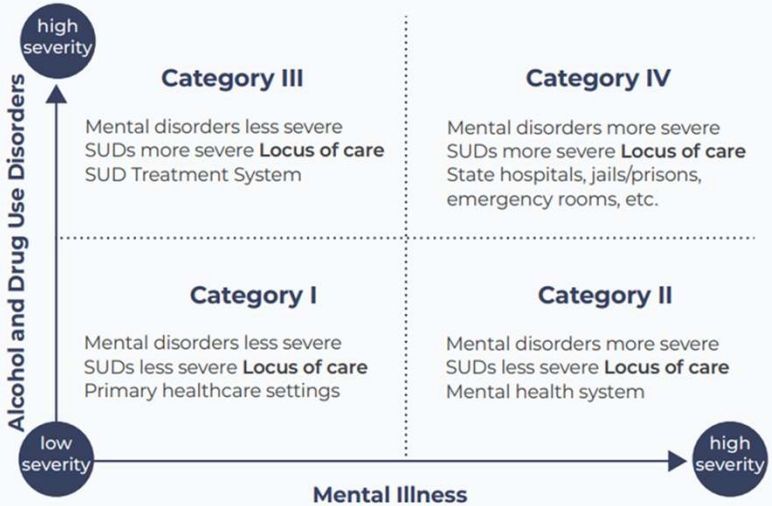
Fred does not have a history of alcohol use or elevated seizure risk. Fred starts bupropion for cravings, which has helped his attention a little bit. You are monitoring it for misuse and using the XL formulation daily dispensed with his methadone.

Fred is then lost to follow up for three months as he was incarcerated and on release has a relapse to fentanyl and methamphetamine use. He returns to care and restarts methadone. He is noticeably different. His caseworker is helping him in the shelter and says, “I’m worried about him, I want him to stay in the shelter, but he’s talking about his cell phone being hacked, it sounds weird, and he’s freaking the other clients out”.

Fred is worried about losing his housing. He says he keeps hearing his sister, who is several provinces away. He also thinks there are drug dealers in the walls and has been trying to make holes and find them, upsetting the staff and leading to multiple police apprehensions. He is moderately open to the idea that this is related to methamphetamine and a symptom of mental health disorder and wants you to help get rid of this problem.

Models are available to help counselors make treatment and referral decisions based on the severity and impact of each disorder. For instance, the quadrants of care (also called the Four Quadrants Model) is a conceptual framework that classifes clients in four basic groups based on relative symptom severity, not diagnosis (Exhibit 2.3). The quadrants of care were derived from a conference, the National Dialogue on CoOccurring Mental Health and Substance Abuse Disorders, which was supported by SAMHSA and two of its centers—CSAT and the Center for Mental Health Services—and co-sponsored by the National Association of State Mental Health Program Directors and the National Association of State Alcohol and Drug Abuse Directors. The quadrants of care is a model originally developed by Ries (1993).

EXHIBIT 3.8. Level of Care Quadrants



Salience

Delusions

A fixed, false belief which may “feel 100% real”

Spectrum of experiences with variations in **insight**

Content may be persecutory, grandiose, somatic (related to the body) or religious

Things may seem meaningful and important which are actually entirely random

Hallucinations: can occur in any of the five senses

Auditory Hallucinations

Very common in psychotic states

May be noises or music

May be words, or sentences, or multiple voices talking to each other

Mumbled or clear

Often hostile, threatening, obscene, insulting

May also be very normal and nonthreatening

May be commanding

Visual Hallucinations

Somewhat common in psychotic disorders

Illusion: misperception of a stimulus

****very common human experience**

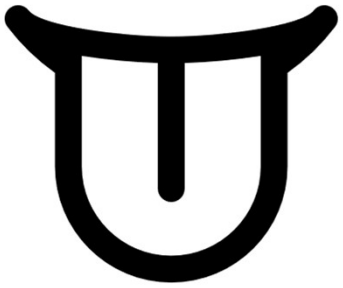
Tactile Hallucinations

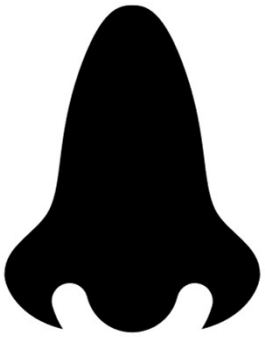
Can be a feature of alcohol withdrawal – **formication**

-or a symptom related to stimulant use

Otherwise relatively rare and concerning for a neurological or medical cause

Cenesthetic hallucinations are altered sensations of bodily organs





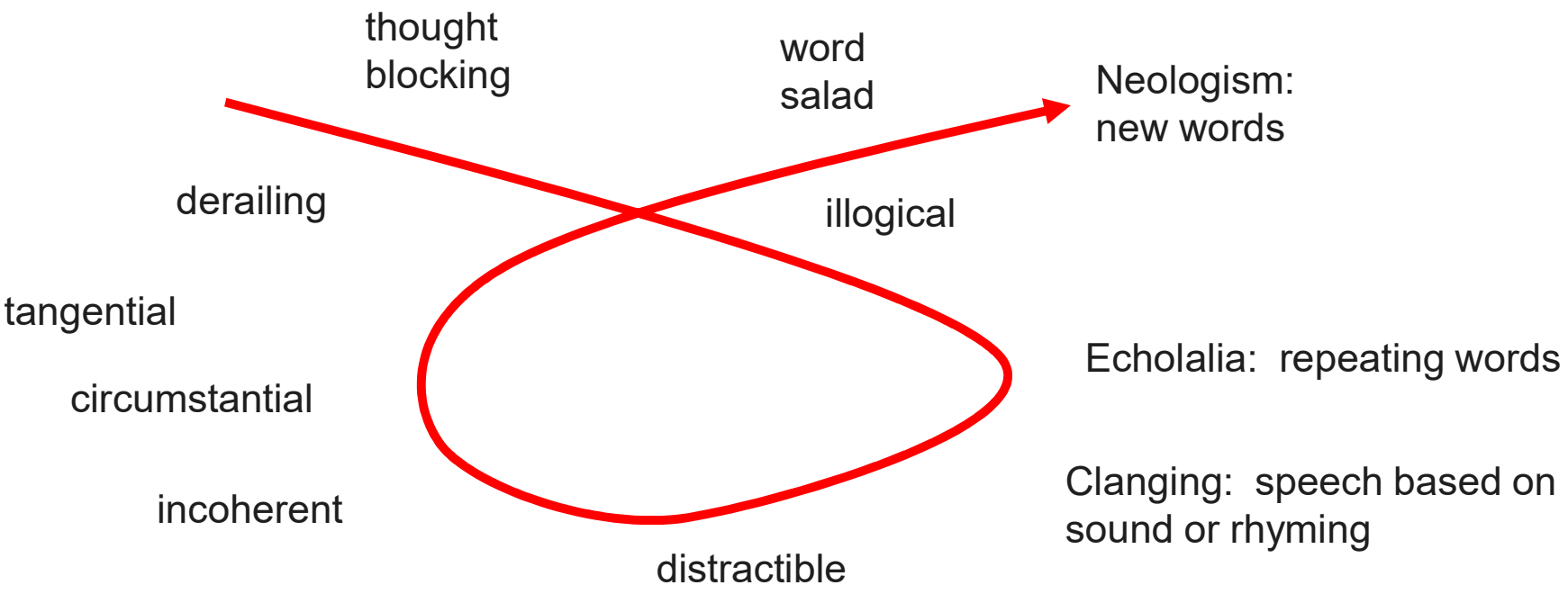
Olfactory or Gustatory Hallucinations

May occur but more rare

Rare in schizophrenia

May be a neurological or medical problem!

Disorganized Speech (and thought)



Psychomotor Behaviour

Grossly disorganized behaviour

Catatonic behaviour: posturing, being very slowed down

Mutism

May alternate between agitation and being almost frozen

These symptoms are more common in schizophrenia compared to substance related psychosis.

Negative Symptoms

Affective flattening: flat facial expression

Alogia: reduced spontaneous speech

Avolition-apathy: loss of goal-directed behaviour

Anhedonia-asociality: less interest in pleasure/enjoyment

Negative symptoms are more common in schizophrenia, and less common in psychosis related to substance intoxication or withdrawal.

Stimulant-induced psychosis

The most common symptoms of methamphetamine-associated psychosis are:

- **persecutory** and referential delusions
- **auditory** and visual hallucinations
- conceptual disorganization, hyperactivity, inappropriate affect, depression also common

Negative symptoms such as flat affect, social withdrawal, poverty of speech, avolition, reduced movement are less common (compared to schizophrenia).

Voce et al., 2019 (20–30% of participants were female in these studies)

Stimulant-induced psychosis

The general definition of a substance-induced mental disorder means that the symptoms are not better explained by a non-substance induced disorder, such that (DSM-5):

- symptoms do not precede the onset of substance use
- symptoms do not persist for a substantial period of time **("about one month")** after withdrawal/intoxication
- there is not other evidence that there is an independent non-substance induced disorder, such as recurrent episodes

(DSM-5)

***this relates to the importance of urinalysis (broad spectrum)**

(there is a similar definition for substance-induced anxiety, depression, and so on)

The complexity, in clinical practice, is how to proceed if a clear history of the period prior to substance use is unavailable, and if abstinence cannot be achieved.

Stimulant-induced psychosis

"The overall median prevalence of persistent symptoms across these studies was **25%**" after >1 month of abstinence.

Longitudinal studies reported persistence in 40% of participants.

Studies have shown transition to a diagnosis of schizophrenia to be 33-38% at 6-7 years, or 16% at 16 years.

→psychotomimetic properties of the drug precipitating psychosis in anyone

→methamphetamine precipitating primary psychosis in predisposed individuals

→...a combination of both forming a heterogenous population among methamphetamine users

Voce et al, 2019

ASAM/AAAP Stimulant Use Disorder Guidelines, 2023

"The CGC recommended that symptoms of psychosis related to or co-occurring with StUD **be treated with indicated pharmacotherapy**. Almost all evidence for treating symptoms of psychosis from systematic reviews and meta-analyses is based on stimulant-induced or unspecified causes of psychosis.114,117,119,150–155 These studies generally noted a large beneficial effect of pharmacotherapy for both preexisting and stimulant-induced psychosis, as well as preexisting and stimulant-induced mania. Undesirable side effects would be similar to those experienced from the use of these medications in any context. The CGC noted that clinicians should be aware of differences in side effect profiles, particularly between typical and atypical antipsychotic medications. Clinicians should **generally avoid use of modafinil or psychostimulant medications** to treat StUD in patients with histories of psychoses, whether substance-induced or preexisting.

134 Similarly, clinicians should **generally avoid use of psychostimulant medications** to treat StUD in patients with histories of stimulant-induced mood disorders."

Treatment of stimulant-induced psychosis: accessing care

Urbanoski, 2018:

OR 0.250 (0.206 to 0.304) of seeing a psychiatrist, 30 days after an ED visit, for individuals who visited an emergency department 5+ times in a year for substance use disorder.

"Controlling for sociodemographic characteristics, comorbidities and past-year service use, those with 1–4 ED visits for SUD and those with 5+ ED visits for SUD had **reduced odds of being hospitalised or visiting a psychiatrist** in the 30 days following their index ED visit, relative to those with no ED visits for SUD".

Treatment of stimulant-induced psychosis

Generally, second-generation antipsychotics are recommended and a tapering attempt at 6 months to determine if they are necessary. (Wodarz, 2017)

There are concerns that neuroleptics can promote cravings due to dopamine blockade (Härtel-Petri, 2017)

In general, if there are significant symptoms, and particularly if there is possibly an underlying primary psychotic disorder (schizophrenia) consider treating with an atypical antipsychotic.

Things to consider from our RAAM experience:

- is it possible to obtain further history about the onset of symptoms?
- is abstinence reasonably likely or desired from the patient's perspective?
- is there good insight into the symptoms?
- even with reasonably good insight, are the symptoms leading to significant functional impairment, such as inability to remain in a safe housing environment or participate in medical tests?

Treatment of Stimulant Induced Psychosis:

- ❑ review symptoms, goals of treatment
- ❑ review risks, benefits and alternatives with the patient, including abstinence from stimulants as an alternative treatment
- ❑ discuss the need for metabolic monitoring, and risks of movement disorders with all antipsychotics
- ❑ prescribe lower doses and go slower if the patient has never used an antipsychotic before
- ❑ second generation antipsychotics are preferred
- ❑ there is limited evidence, but aripiprazole has had negative trials (see earlier slides) and has a warning for impulse control disorders

Example of treatment plan:

3 mg paliperidone for one week, then 6 mg paliperidone for one week

Then 150 mg IM loading dose of paliperidone (day 1) and 100 mg first dose IM on day 8.

Following this, 100 mg IM every four weeks.

Stimulant Induced Psychosis: other considerations

Patients who have developed psychosis with a stimulant should not be treated with other stimulant medications such as prescription stimulants, or they should be closely monitored.

Consider a long-acting antipsychotic, particularly if there is a high suspicion of schizophrenia, difficulties with medication adherence, or if the patient is finding the oral medication very helpful. (Remington, 2017)

For **all patients taking antipsychotics for any indication**, monitoring of risk factors must be performed:

1. Abnormal Involuntary Movement Scale (http://www.cqaimh.org/pdf/tool_aims.pdf)

2. Metabolic monitoring: http://help4psychosis.ca/wp-content/uploads/2015/08/Canadian-Cardiometabolic-Risk-Management-Postcard.pdf

*in acute intoxication, antipsychotics may lower the seizure threshold or increase the risk of rhabdomyolysis (which is related to being placed in restraints), or extrapyramidal symptoms (ASAM 2019)

Canadian Psychiatric Association Guidelines 2017

Following resolution of positive symptoms of the first episode of schizophrenia, the duration of maintenance treatment with antipsychotics should be ***at least 18 months.***

Following resolution of positive symptoms of an acute episode of schizophrenia, patients should be offered maintenance treatment and antipsychotic medication ***for 2 and possibly up to 5 years or longer.***

Antipsychotics

First Generation	Second Generation	Third Generation
Haloperidol (Haldol)	Olanzapine (Zyprexa)	Aripiprazole (Abilify)
Loxapine (Loxapac)	Quetiapine (Seroquel)	Brexpiprazole (Rexulti)
Zuclopenthixol (Clopixol)	Quetiapine XR	Cariprazine (Vraylar)
Fluphenazine (Modecate)	Risperidone (Risperdal)	
Flupenthixol (Fluanxol)	Paliperidone (Invega)	
Methotrimeprazine (Nozinan)	Ziprasidone (Zeldox)	
Trifluoperazine (Stelazine)	Clozapine (Clozaril)	
Perphenazine	Asenapine (Saphris)	
Chlorpromazine	Lurasidone (Latuda)	

7

Treatment With Long-Acting Injectable Antipsychotic Medication

Adults who are admitted to an inpatient setting with a primary diagnosis of schizophrenia are offered the option of a long-acting injectable antipsychotic medication.

What This Quality Statement Means

For Patients

You should be offered long-acting antipsychotic medications. These are injected once or twice a month.

For Clinicians

Offer the option of long-acting injectable antipsychotic medications to people with schizophrenia. Offer this option early in the course of antipsychotic treatment.

For Health Services

Through adequately resourced systems and services, ensure that clinicians are able to offer long-acting injectable antipsychotic medications to people with schizophrenia.

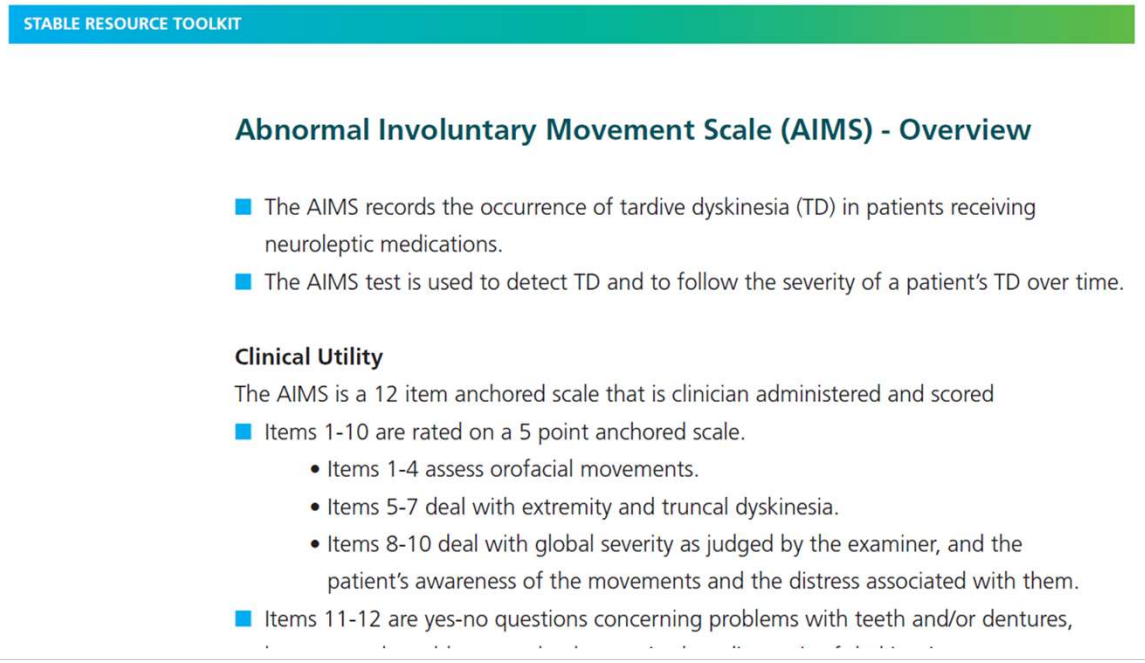
DEFINITIONS USED WITHIN THIS QUALITY STATEMENT

Long-acting injectable antipsychotic medications

These medications are injected every 2 to 4 weeks. The option of treatment with long-acting injectable antipsychotic medications should be offered early in the course of antipsychotic treatment.

Abnormal Involuntary Movement Scale

http://www.cqaimh.org/pdf/tool_aims.pdf



STABLE RESOURCE TOOLKIT

Abnormal Involuntary Movement Scale (AIMS) - Overview

- The AIMS records the occurrence of tardive dyskinesia (TD) in patients receiving neuroleptic medications.
- The AIMS test is used to detect TD and to follow the severity of a patient's TD over time.

Clinical Utility

The AIMS is a 12 item anchored scale that is clinician administered and scored

- Items 1-10 are rated on a 5 point anchored scale.
  - Items 1-4 assess orofacial movements.
  - Items 5-7 deal with extremity and truncal dyskinesia.
  - Items 8-10 deal with global severity as judged by the examiner, and the patient's awareness of the movements and the distress associated with them.
- Items 11-12 are yes-no questions concerning problems with teeth and/or dentures,

Metabolic Monitoring

Life expectancy is 15-25 years lower in schizophrenia! This is primarily related to cardiovascular disease.

Monitoring: How Often and What to Do

Applies to patients prescribed antipsychotics and metabolically active mood stabilizers and antidepressants

Frequency: As a minimum review those prescribed a new agent at baseline and at least once after 3 months. Weight should be assessed monthly in the first 3 months of taking a new antipsychotic as rapid early weight gain may predict severe weight gain in the longer term. Subsequent review should take place annually unless an abnormality of physical health emerges, which should then prompt appropriate action and/or continuing review at least every 3 months.

	Baseline	4 weeks	8 weeks	12 weeks	Quarterly	Annually
Personal/FHx	X					X
Lifestyle Review[1]	X	X	X	X	X	X
Weight/WC	X	X	X	X	X	X
BP	X			X		X
FPG/HbA1C	X			X		X
Lipid Profile[2]	X			X		X

History: Ask about family history (diabetes, obesity, CVD in first degree relatives <60 yrs), gestational diabetes. Note ethnicity.

[1]Smoking, diet, and physical activity [2]If fasting lipid profile cannot be obtained, a non-fasting sample is satisfactory

Derived from consensus guidelines 2004, j clin. psych 65:2

…and QTc monitoring!

J Psychopharmacol. 2010 Nov; 24(4_supplement): 9–15.

http://help4psychosis.ca/wp-content/uploads/2015/08/Canadian-Cardiometabolic-Risk-Management-Postcard.pdf

“Fred”

Fred’s friend has brought him to clinic a week later and he is visibly agitated. You put him in an empty room and give him a snack, and his friend says, “he’s really scaring me, he’s convinced people are in the walls, he put holes in my walls with a knife, he says I’m ‘in on it’ “. He has stopped taking his medication. “He was holding a knife this morning and told me he will hurt me if I ‘work with them”. You see Fred and he is calm. He tells you he can hear the drug dealers from the room, they are plotting to kill him, and he wants you to get him “protective custody”.

How can a patient be urgently assessed by psychiatry?

1. **He saw his family physician 4 days ago for another issue (his foot was painful) and his doctor noticed he was talking to himself in the waiting room. His friend calls his doctor, and his doctor issues a form 1, calls the police and the police apprehend him.**

"Application for psychiatric **assessment**"

This assessment may take up to 72 hours, but the detention only commences at a "Schedule 1" facility

The patient receives a notification ("Form 42") *only* upon arrival at the Schedule 1 facility

Any physician may fill out a form 1 after performing an assessment

The physician has 7 days after an assessment to fill it out

The form gives authority for 7 days afterwards for police to apprehend the person

Upon arrival at the facility the detention lasts a maximum of 72 hours

2. **His friend calls police urgently when they are threatened, and the police bring him to the hospital as a disturbed person.**
3. **The next day, his caseworker visits a Justice of the Peace, describes the circumstances and obtains a form 2, and the police apprehend the person and bring him to hospital for consideration of a form 1.**

“Fred”

Fred was admitted to the mental health unit for a three weeks. During that time he was found incapable to consent to treatment and the unit phoned his sister to make medication decisions for him, as his parents are both deceased. You are not sure what the implications of this are and wonder if you could refer him to a program that has more appropriate services than you RAAM clinic.

Capacity and Consent to Treatment

Treatment capacity is SEPARATE from hospitalization or detention

Consent is based on capacity, and there is no age of consent in Ontario

Ontario's *Health Care Consent Act* defines capacity with respect to treatment as follows:

"A person is capable with respect to a treatment…if the person is able to understand the information that is relevant to making a decision about the treatment…, and able to appreciate the reasonably foreseeable consequences of a decision or lack of decision."

- ❑ capacity is specific to the treatment
- ❑ consent must be obtained prior to starting a treatment (except in emergencies) by the capable person or incapable person's substitute decision maker
- ❑ any inpatient or outpatient can contest a finding of incapacity, with respect to any treatment by requesting a hearing of the Consent and Capacity Board

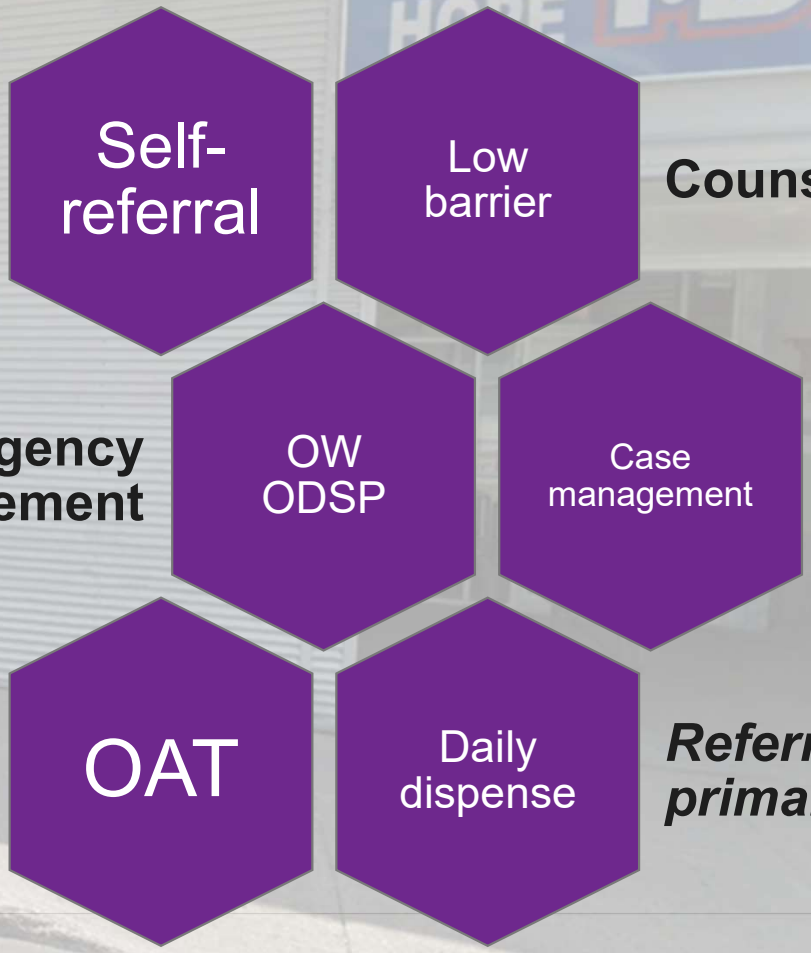
Incapacity findings can be reversed by making a finding of capacity. ***We make capacity findings (by default) most of the time, because patients are presumed capable.***

Assertive Community Treatment

https://ontarioactassociation.com/resources/

- ❑ team-based care for patients who have had significant hospital admissions
- ❑ team members include doctors, nurses, case workers, counsellors, peer support workers
- ❑ often provide care for patients on Community Treatment Orders
- ❑ according to this resource, 100% of Ontario ACT are over capacity

RAAM: The bigger picture for stimulant use disorder



Counselling

Contingency management

Referral to primary care

Stimulant use disorder in RAAM: Summary

- ❑ For **cravings**, consider bupropion, mirtazapine or naltrexone (not with opioids/OAT!)
- ❑ One can consider stimulant treatment with **long-acting**, supervised, monitored stimulants in patients without psychosis or mania
- ❑ Identify and treat **psychosis**, regardless of the cause
- ❑ **Refer** to psychiatry and higher levels of care such as ACT

Daily dispensing and daily observed dosing of medication

Benefits:

- Medication adherence
- Prevent injection or inhalation abuse in some prescription drugs
- Assists with establishing a daily routine and often alter drug use patterns
- Can improve attendance in other appointments (food bank etc.)
- It provides daily connection with a pharmacy staff member
- ***Contact point for patients without access to a phone***

Acknowledgements

The whole team at the Brant Haldimand Norfolk RAAM for their contribution to these slides and incredible teamwork.

Resources

http://himynameistina.com

Psychoeducation, patient information, focus on the LGBTQ community

Get Your Loved One Sober: Alternatives to Nagging, Pleading, and Threatening

Meyers and Wolfe

Course for concerned family members:

https://moodle8.camhx.ca/moodle/course/view.php?id=11

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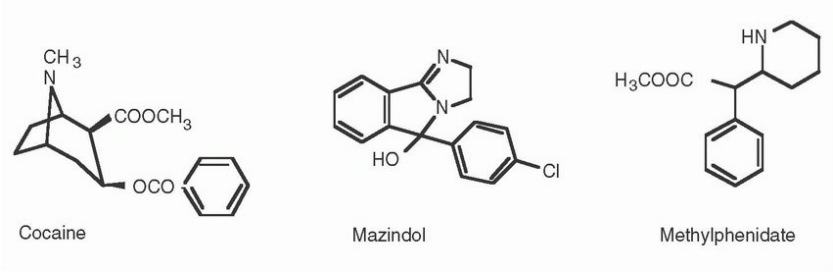
The ASAM/AAAP Clinical Practice Guideline on the Management of Stimulant Use Disorder, 2023 https://www.asam.org/quality-care/clinical-guidelines/stimulant-use-disorders

Questions

Pharmacology



Cocaine: $t_{1/2}$ 45-90 minutes

- Blocks membrane sodium channels → anesthetic
- Blocks reuptake: dopamine, norepinephrine, serotonin

Amphetamines: $t_{1/2}$ 6-15 hours

- Blocks reuptake
- Causes RELEASE of additional dopamine

- Increased dopamine in nucleus accumbens leads to reinforcement
- Long term depletion of neurotransmitters leading to neurocognitive effects

7% of cocaine users develop dependence in the first year of use

ASAM Principles of Addiction Medicine, Figure 12-1, 2019
Lopez-Quintero et al, Drug Alcohol Depend. 2011 May 1; 115(1-2): 120–130.

Box A:

Past/Present Test:

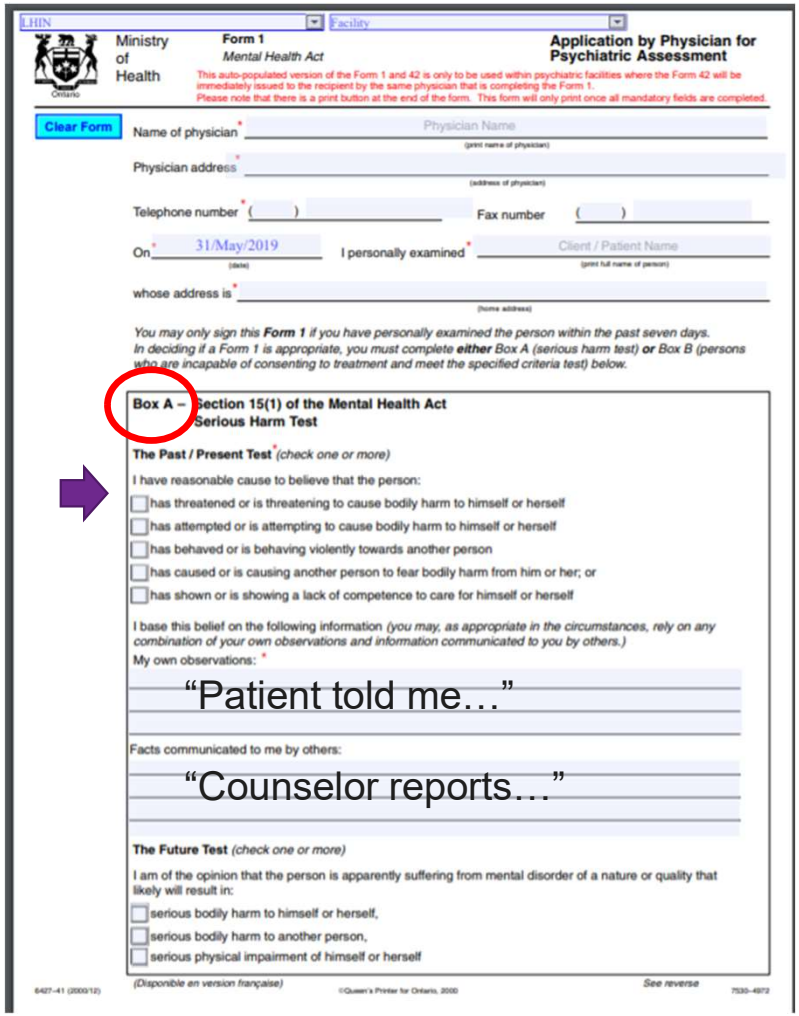
What is the RISK?

Logically connected to the box that is checked:

“patient threatened to kill person X”

“patient told nurse they would kill themselves and had pills with them to overdose on”

“patient is not wearing shoes, temperature today is -15C”



Box A:

Future Test:

What is the MENTAL DISORDER?

Same box must be checked!

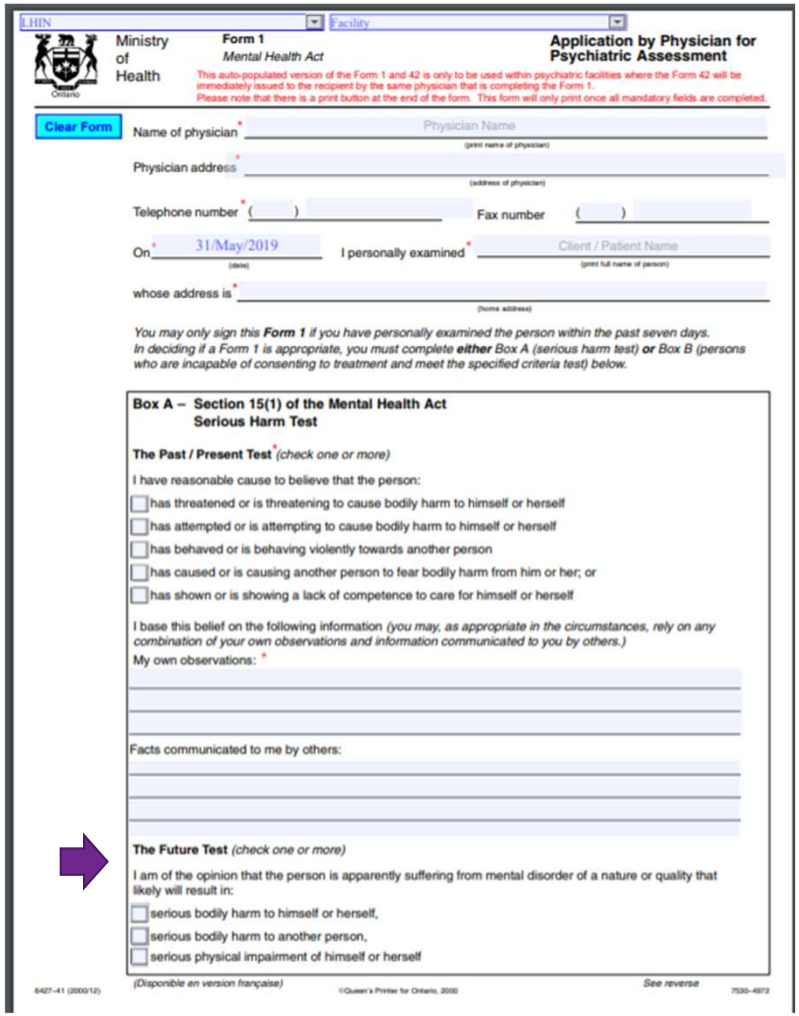
“patient is talking to himself”

“speech is disorganized”

“patient is tearful, appears depressed”

****symptoms** of a mental disorder, do not need a diagnosis

*****substance use/intoxication is considered a mental disorder



LHIN | Facility

Ministry of Health — Ontario

Form 1
Mental Health Act

Application by Physician for Psychiatric Assessment

This auto-populated version of the Form 1 and 42 is only to be used within psychiatric facilities where the Form 42 will be immediately issued to the recipient by the same physician that is completing the Form 1.
Please note that there is a print button at the end of the form. This form will only print once all mandatory fields are completed.

Clear Form

Name of physician * Physician Name
(print name of physician)

Physician address *
(address of physician)

Telephone number * ( ) Fax number ( )

On * 31/May/2019 (date) I personally examined * Client / Patient Name (print full name of person)

whose address is *
(home address)

*You may only sign this **Form 1** if you have personally examined the person within the past seven days.*
*In deciding if a Form 1 is appropriate, you must complete **either** Box A (serious harm test) **or** Box B (persons who are incapable of consenting to treatment and meet the specified criteria test) below.*

Box A – Section 15(1) of the Mental Health Act
Serious Harm Test

The Past / Present Test *(check one or more)*

I have reasonable cause to believe that the person:

- ☐ has threatened or is threatening to cause bodily harm to himself or herself
- ☐ has attempted or is attempting to cause bodily harm to himself or herself
- ☐ has behaved or is behaving violently towards another person
- ☐ has caused or is causing another person to fear bodily harm from him or her; or
- ☐ has shown or is showing a lack of competence to care for himself or herself

I base this belief on the following information *(you may, as appropriate in the circumstances, rely on any combination of your own observations and information communicated to you by others.)*

My own observations: *

Facts communicated to me by others:

The Future Test *(check one or more)*

I am of the opinion that the person is apparently suffering from mental disorder of a nature or quality that likely will result in:

- ☐ serious bodily harm to himself or herself,
- ☐ serious bodily harm to another person,
- ☐ serious physical impairment of himself or herself

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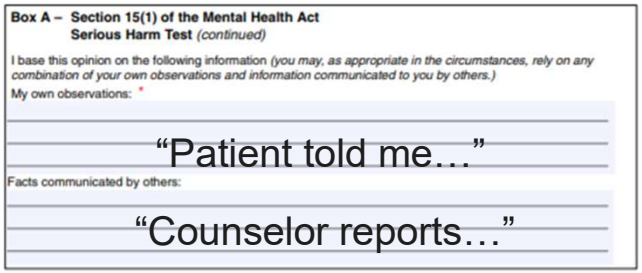
Still Box A



Box A – Section 15(1) of the Mental Health Act
Serious Harm Test *(continued)*

I base this opinion on the following information *(you may, as appropriate in the circumstances, rely on any combination of your own observations and information communicated to you by others.)*

My own observations: *

"Patient told me…"

Facts communicated by others:

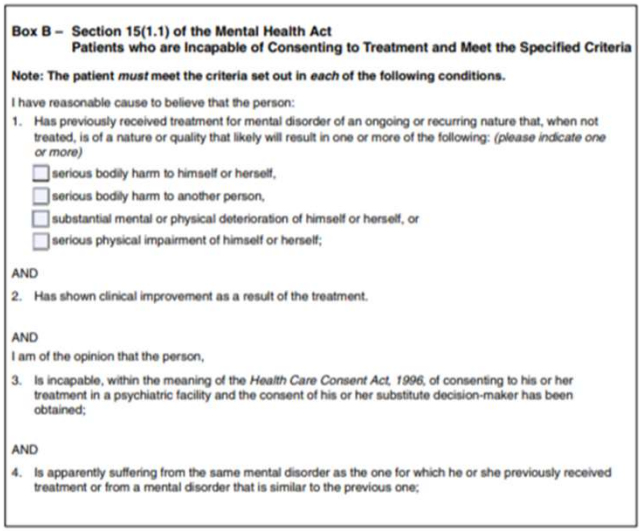
"Counselor reports…"

Box B:

Avoid this unless you are sure you have all criteria and are very confident in using this:

1. Past treatment for a disorder which caused a risk to self/others
2. Improved with treatment
3. Is incapable as per HCCA ***and*** SDM agrees to treatment
4. Is having the same disorder again
5. Given the history ***and*** current symptoms this is likely to results in harm again

DO NOT USE BOX A and BOX B together



Box B – Section 15(1.1) of the Mental Health Act
Patients who are Incapable of Consenting to Treatment and Meet the Specified Criteria

Note: The patient *must* meet the criteria set out in *each* of the following conditions.

I have reasonable cause to believe that the person:

1. Has previously received treatment for mental disorder of an ongoing or recurring nature that, when not treated, is of a nature or quality that likely will result in one or more of the following: *(please indicate one or more)*
   - ☐ serious bodily harm to himself or herself,
   - ☐ serious bodily harm to another person,
   - ☐ substantial mental or physical deterioration of himself or herself, or
   - ☐ serious physical impairment of himself or herself;

AND

2. Has shown clinical improvement as a result of the treatment.

AND

I am of the opinion that the person,

3. Is incapable, within the meaning of the *Health Care Consent Act, 1996*, of consenting to his or her treatment in a psychiatric facility and the consent of his or her substitute decision-maker has been obtained;

AND

4. Is apparently suffering from the same mental disorder as the one for which he or she previously received treatment or from a mental disorder that is similar to the previous one;

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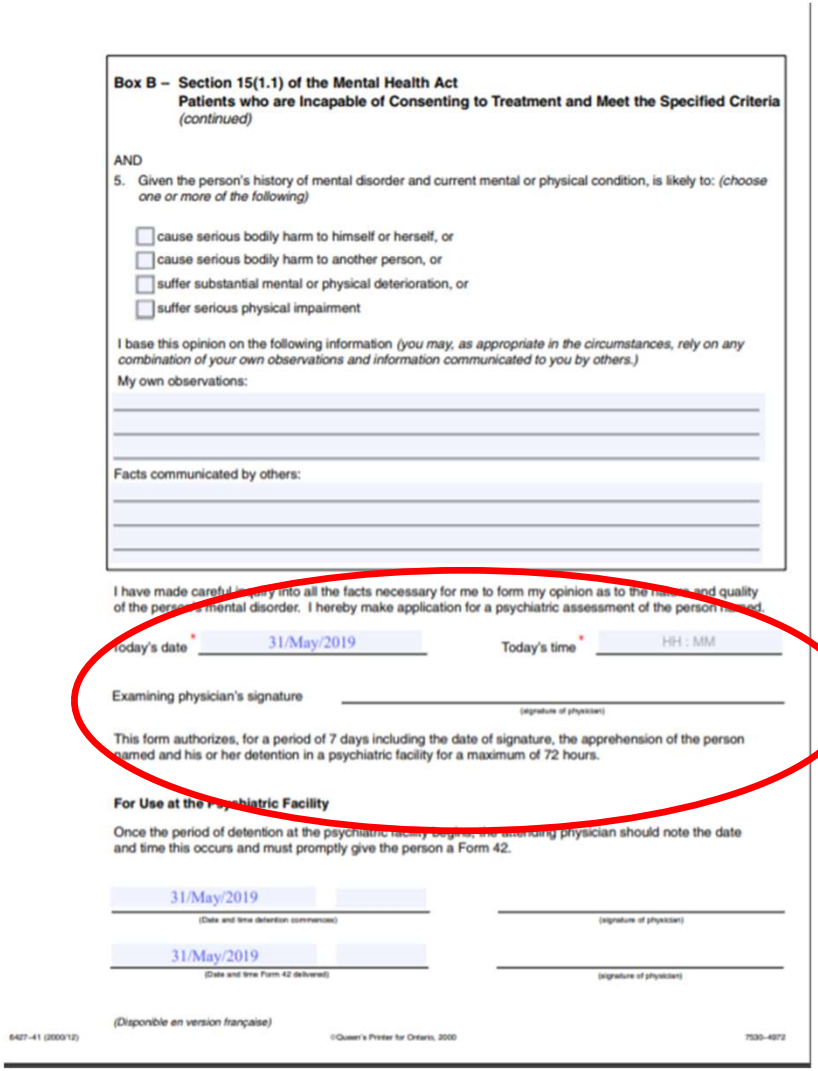
Last page

Sign only the part that is circled with the date, time and signature unless you are in a schedule one hospital.

DO NOT fill out the bottom, that is only for when they arrive at the hospital to start the 72 hour clock. You do NOT give them a form 42 until they arrive at the appropriate (schedule 1) hospital.



Box B – Section 15(1.1) of the Mental Health Act
Patients who are Incapable of Consenting to Treatment and Meet the Specified Criteria
(continued)

AND

5. Given the person's history of mental disorder and current mental or physical condition, is likely to: *(choose one or more of the following)*

- ☐ cause serious bodily harm to himself or herself, or
- ☐ cause serious bodily harm to another person, or
- ☐ suffer substantial mental or physical deterioration, or
- ☐ suffer serious physical impairment

I base this opinion on the following information *(you may, as appropriate in the circumstances, rely on any combination of your own observations and information communicated to you by others.)*

My own observations:

Facts communicated by others:

I have made careful inquiry into all the facts necessary for me to form my opinion as to the nature and quality of the person's mental disorder. I hereby make application for a psychiatric assessment of the person named.

Today's date * 31/May/2019 Today's time * HH : MM

Examining physician's signature

(signature of physician)

This form authorizes, for a period of 7 days including the date of signature, the apprehension of the person named and his or her detention in a psychiatric facility for a maximum of 72 hours.

For Use at the Psychiatric Facility

Once the period of detention at the psychiatric facility begins, the attending physician should note the date and time this occurs and must promptly give the person a Form 42.

31/May/2019
(Date and time detention commences)

(signature of physician)

31/May/2019
(Date and time Form 42 delivered)

(signature of physician)

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General approach

Make a logical connection:

“Patient told nurse they want to die, patient showed me a knife”

□ has threatened or is threatening to cause bodily harm to himself or herself

“Patient appears depressed, tearful, not making eye contact”

□ serious bodily harm to himself or herself

keep in mind there is a box for **causing another person to fear bodily harm, which may include your clinic