**1) Definitions**

Substance Use Disorder (SUD): uncontrolled use of a substance leads to adverse consequences (e.g., health, or problems at work, school or home). More severe SUDs may be called addictions.

Addiction’s 4Cs: LOSS of control over substance use WITH craving &/or compulsive use which is continued despite consequences.

Dependence, physical: a state of adaptation resulting in drug-class specific withdrawal symptoms upon abrupt dose reduction, decreasing drug levels or antagonist administration.

**2) A Sampling of Statistics**

(TADS 2017; CADUMS 2011/12; PHAC 2021)

- Prevalence, past 1yr: any tobacco (18%), e-cigarette (3%); illegal drugs (3%), cocaine (2%), ecstasy (1%), hallucinogens (1%); problematic psychoactive use to get high or other (i.e. opioid, stimulant, tranquilizers & sedatives, 5%).
- The rate of drug use: cannabis or crack, speed, ecstasy, hallucinogens (including acid or hallucinogenic: by youth 15-24 yrs is much higher (6.5%) than reported by adults ≥25 yrs (1.2%).
- 72% of non-medical opioids used by students were obtained from home.
- The prevalence of harm higher among youth aged 15 to 24 yrs (5.5%) than adults aged 25+ yrs (1.4%). (Age adjusted mortality ↑ 5x in urban SUD ↑)
- Use of substances in relation to social life, work, health, studies, employment, financial, legal, housing, learning.)
- ↑10% report drugs/alcohol as reason for 1st ever sexual intercourse.
- Opioid toxicity deaths: over Syrs 2016-2020, there were 21,174. In 2020, half also involved stimulants. An ↑89% was seen during the COVID-19 pandemic.

Factors: ↑ ↑ toxicity of drug supply, ↑ isolation/stress, ↓ access to services.

**3) Principles of SUD Treatment**

1) No single tx is appropriate for all; concomitant medications are useful for many; tx needs to be readily available
2) For success, attend to multiple needs, not just drug use
3) Assess for medical, family, vocational, social & legal services
4) Ensure adequate time in treatment (≥3 months)
5) Arrange for counselling & behavioural tx
6) Integrate tx for those with mental disorders
7) Acute detoxification is only the 1st stage of tx
8) Tx does not need to be uniform, as it is effective
9) Drug & alcohol treatment should be ongoing
10) Assess for HIV/AIDS, HBV, HCV, etc. & counsel re. harm reduction
11) Expect a long-term, life-long recovery process with relapses
12) Individual support programs, e.g. self-help & spiritual

**4) SUD Screening: CAGE-AID, AUDIT, Other e.g. SASSI**

<table>
<thead>
<tr>
<th>AUDIT: questions to assess alcohol use*</th>
<th>0</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. How often do you have 1 drink containing alcohol?</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>2. How many drinks do you have on a typical day?</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>3. If you had a typical month, how many drinks would you have at the end of the month?</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>4. If you had a typical day, how many drinks would you have at the end of the month?</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>5. How often did you feel normal after drinking?</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>6. If you had a typical month, how many drinks would you have at the end of the month?</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>7. How often did you feel normal after drinking?</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>8. If you had a typical month, how many drinks would you have at the end of the month?</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>9. How often did you feel normal after drinking?</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>10. If you had a typical month, how many drinks would you have at the end of the month?</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>

**5) RED Flags – Aberrant Rx Drug Use**

Consider: Brief Intervention/Discontinuation/Referral if...

1. Prescriptions from multiple physicians (check prescription profile)
2. Frequent visits to emergency room requesting drugs of abuse
3. Requests from patients outside local area! Check picture ID!
4. Stolen, modification or tampering of prescriptions
5. Polyclinapharmacy with CNS depressants, hallucinogens & cannabinoids
6. Forgery, selling, stealing, or using other person’s medications
7. Injecting oral or chewing long-acting formulations

**6) Adopting a Continuum of Care Approach for Substance Use Disorders**

- Identify those who may be at risk
- Brief Interventions: Ask, Advise, Referral
- Community Outreach: Education, harm reduction resources, referrals, outreach programs
- Special Access Clinics: Option of specialist involvement when needed

**HARM REDUCTION**

- Integrate tx for those with mental disorders
- Arrange for counselling & behavioural tx
- Consider: Brief Intervention/Discontinuation/Referral if...

**7) Principles of SUD Treatment**

1. How often do you have 1 drink containing alcohol?
2. How many drinks do you have on a typical day?
3. If you had a typical month, how many drinks would you have at the end of the month?
4. If you had a typical day, how many drinks would you have at the end of the month?
5. How often did you feel normal after drinking?
6. If you had a typical month, how many drinks would you have at the end of the month?
7. How often did you feel normal after drinking?
8. If you had a typical month, how many drinks would you have at the end of the month?
9. How often did you feel normal after drinking?
10. If you had a typical month, how many drinks would you have at the end of the month?

**AUDIT:** questions to assess alcohol use: 0 = low risk; 1 = moderate risk; 2 = high risk; 3 = very high risk

**Single Question Screen:** How many times in the past year have you used an illegal drug or prescription med for nonmedical reasons?

**History – Use a non-judgmental, non-stigmatizing approach:**

- Ask first about socially acceptable drugs: caffeine, nicotine
- Ask next about CBD & alcohol, specifically beer & wine; quantity used. Then ask about high-potency cannabis, & illicit drugs. Don’t rely on intuition!
- Are illicit drugs available at school/work? What triggers craving?
- Do you have any close friends who sometimes use drugs?
- When assessing a patient’s answers to the above questions: one YES suggests caution; ≥2 YES suggests strong caution/need for vigilance.

**Reassess Regimen &/or Treatment Agreement**

1. Rapid ↑ in doses especially if ≥90mg morphine equivalent in CNCP
2. Demonstrate early & reliable effects for ruling out Rx’s
3. Aversion to concurrent recommended non-opiod tx or UD
4. Request for brand-name vs generic & short vs long-acting meds
5. Missed follow-up visits, lack of adequate refills

** Harm Reduction Measures (See chart)**

- Address risks for other diseases (e.g. Hep C, syphillis)
- a) screening, b) needle distribution & exchange programs, c) vaccinations, d) counselling regarding risky behaviours, e) safer smoking options, f) referral, related services g) oral hygiene

- Educate regarding responding to overdose (including recommending take-home naloxone; see chart)

- Inform see supervised consumption services when available

**Common Core Interventions**

- CBT, contingency management, counselling
- Recovery, Sustaining wellness & Ongoing Care
- Ongoing supports, formal & informal, to help change lifestyle & behaviour

**A SUD is a chronic disease. Patients with a SUD will require acute & ongoing intervention. A continuum of care approach supports patients in accessing various levels & intensities of care over time. An effective team approach is often the critical factor toward a successful outcome.**

**Best Practices (Adapted)**

1. The individual experiencing harm should determine ultimate goal of treatment (e.g. safer use, substitution therapy, abstinence, etc.) with input from provider
2. Determine treatment plan together. Offer stepped care with least intensive services first (collaborate; offer menu of options)
3. Assess, address, coordinate all wellbeing components
4. Ensure services are culturally, trauma & gender informed
5. Reduce stigma to overcome major recovery barriers
6. Peer-engaged and peer-led services help with trust
7. Enhance outcomes by being recovery-oriented

**Urine Drug Screening: JUDS:** to monitor medication compliance & identify/manage SUD risks. 

- Immunoassay: rapid, inexpensive & preferred for initial screening. Chromatography: $↑, delay but ↑ accuracy.
- Assess drug use for false positives. Ensure proper collection technique & integrity of specimen.
- Goal is to improve patient care & communication, NOT to police! Discuss unexpected results with patient.

- If prescribed drug there? Are any non-prescribed drugs there? See UDS chart.
- If issues identified, advise of consequences, tighten boundaries, refer to addiction service/specialist when necessary
SUBSTANCE USE DISORDER (SUD)/ADDICTION: Overview of Health Concerns & Treatment Considerations

**Signs/Symptoms: Overuse/Health Concerns**

- **Cannabinoids**
  - THC = delta-9-tetrahydrocannabinol
- **Hashish**
  - hash and hemp flower + resin: boom, hash, hemp
  - Synthetic: Spice, K2
- **Marijuana**
  - hemp drone - dope, grass, joints, weed, pot
  - Synthetic: 2C, 2C-B, 2C-T, 2C-D, 2C-E (2: monoamine oxidase inhibitor; 2C: synthetic hallucinogen)
- **Heroin**
  - natural, semi-synthetic, synthetic: opium, morphine
- **Erythrolum coca (coca leaf)**
- **MDMA**
- **Benzodiazepines**
  - Flunitrazepam
- **Gammahydroxybutyrate**
  - 26: 900-1800mg/d
- **Phencyclidine**
- **Club drugs**
  - Erythrolum coca, 26, N2O, etc.
  - (testosterone, Androil, Quetiapine)
- **Spice, K2**

**Management & Treatment Options:**

- Acute intoxication: 1-3 hour; similar to alcohol, changes in mood, perspiration & normal state of mind.
- **Withdrawal syndrome:**
  - anger, anxiety, irritability, insomnia, etc.
  - Peak: 2-6 days
  - CBTT: watchful waiting
  - Legal cannabinoids for medical use: consider if indicated: see RxFiles Cannabinoids Chart!

*Unseen drug testing (UAT) available; remains: 1-3 days with single use, 10 days casual use, 2-4 weeks in heavy use, months in chronic heavy use. NOTE: nalbuphine does not show up on UDS.*

(See chart pg 139-140)

**Acute toxicity:**

- reversed by naloxone: NARCAN, an opioid antagonist.
- Opioids: Opioid Agonist Therapy (OAT) - Risk (pg 135-136)

**Respiratory Depression & Coma:**

- tx intubation & ventilation; Hypocapnia (eg with excess THC 5-10x IV glucose)

**Acute withdrawal:**

- Opioids: Opioid Agonist Therapy (OAT), diethylpropion (Dilaudid).

**Club Drug Abuse:**

- Ecstasy, Rohypnol, ketamine, crystal meth, GHB, poppers, nicotine

**Poor health outcomes:**

- Drowsiness, slurred speech, impaired coordination, drowsy, weak, tremors (LSD & mescaline)

- **Seizures on withdrawal:** esp if previous hx; alprazolam particularly of concern.

**Caffeine:**

- energy drinks
- diet soda
- tobacco
- weight loss
- erectio lingua

**Antagonists:**

- Naltrexone: opioid antagonist therapy (OAT)

**Dependence:**

- opioid dependence
- diethylpropion (Dilaudid)

**Psychological Withdrawal:**

- anxiety
- panic, aggression, violence

**Tolled:**

- seizures (especially propoxyphene), paralytic ileus

**Cocaine:**

- HD, MR, VP
- heart rate
- blood pressure

**Heroin:**

- HD, MR
- heart rate
- blood pressure

**MDMA:**

- HD, MR
- heart rate
- blood pressure

**Benzodiazepines:**

- HD, MR
- heart rate
- blood pressure

**Heroin intoxication:**

- respiratory depression, coma

**Seizure induction:**

- Topiramate, phenytoin, valproic acid

**Drug-Induced Hypersensitivity syndrome:**

- rash, fever, exfoliative dermatitis

**Drug-Induced Eosinophilia:**

- rash, fever, eosinophilia

**Drug-Induced Urticaria:**

- rash, hives, angioedema

**Drug-Induced Anaphylaxis:**

- rash, hives, angioedema, shock

**Drug-Induced Blood Dyscrasias:**

- anemia, neutropenia, thrombocytopenia

**Drug-Induced Pancytopenia:**

- anemia, neutropenia, thrombocytopenia

**Drug-Induced Agranulocytosis:**

- fever, chills, sweats, respiratory distress

**Drug-Induced Thrombocytopenia:**

- bruising, petechiae, purpura

**Drug-Induced Thrombosis:**

- deep vein thrombosis, pulmonary embolism

**Drug-Induced Nephrotoxicity:**

- acute or chronic kidney injury

**Drug-Induced Hepatotoxicity:**

- jaundice, liver failure

**Drug-Induced Pancreatitis:**

- abdominal pain, nausea, vomiting

**Drug-Induced Cardiotoxicity:**

- myocardial infarction, arrhythmia

**Drug-Induced Myopathy:**

- muscle weakness, atrophy

**Drug-Induced Neuromyopathy:**

- muscle weakness, atrophy

**Drug-Induced Myalgia:**

- muscle pain

**Drug-Induced Ocular Toxicity:**

- retinopathy, cataracts

**Drug-Induced Ocular Hypertension:**

- increased intraocular pressure

**Drug-Induced Uveitis:**

- pain, redness, photophobia

**Drug-Induced Keratitis:**

- pain, redness, photophobia

**Drug-Induced Conjunctivitis:**

- pain, redness, photophobia

**Drug-Induced Scleritis:**

- pain, redness, photophobia

**Drug-Induced Keratoconjunctivitis:**

- pain, redness, photophobia

**Drug-Induced Necrotizing Fasciitis:**

- pain, redness, photophobia

**Drug-Induced Necrotizing Myositis:**

- pain, redness, photophobia

**Drug-Induced Necrotizing Myalgia:**

- pain, redness, photophobia

**Drug-Induced Myositis:**

- pain, redness, photophobia

**Drug-Induced Myalgia:**

- pain, redness, photophobia

**Drug-Induced Arthralgia:**

- pain, redness, photophobia

**Drug-Induced Arthritis:**

- pain, redness, photophobia

**Drug-Induced Dactylitis:**

- pain, redness, photophobia

**Drug-Induced Gastrointestinal Toxicity:**

- nausea, vomiting, diarrhea, constipation

**Drug-Induced Hepatotoxicity:**

- jaundice, liver failure

**Drug-Induced Renal Toxicity:**

- renal failure, acute interstitial nephritis

**Drug-Induced Cardiac Toxicity:**

- myocardial infarction, arrhythmia

**Drug-Induced Pulmonary Toxicity:**

- pulmonary edema, interstitial lung disease

**Drug-Induced Skin Toxicity:**

- rash, dermatitis, psoriasis

**Drug-Induced Hair Loss:**

- alopecia, telogen effluvium

**Drug-Induced Nails:**

- onycholysis, onychomadesis

**Drug-Induced Oral Toxicity:**

- ulceration, glossitis, angular cheilitis

**Drug-Induced Dental Toxicity:**

- tooth decay, periodontal disease

**Drug-Induced Endocrine Toxicity:**

- thyroid dysfunction, diabetes mellitus

**Drug-Induced Sexual Dysfunction:**

- hypogonadism, erectile dysfunction

**Drug-Induced Cognitive Toxicity:**

- memory loss, concentration difficulties

**Drug-Induced Neurotoxicity:**

- tremor, ataxia, parkinsonism

**Drug-Induced Psychiatric Toxicity:**

- anxiety, depression, psychosis

**Drug-Induced Psychotic Toxicity:**

- delusions, hallucinations, paranoia

**Drug-Induced Autoimmune Toxicity:**

- rheumatoid arthritis, lupus

**Drug-Induced Hematological Toxicity:**

- anemia, neutropenia, thrombocytopenia

**Drug-Induced Hemostatic Toxicity:**

- bleeding, thrombosis

**Drug-Induced Immune Toxicity:**

- autoimmunity

**Drug-Induced Immune Suppression:**

- opportunistic infections, transplant rejection
Management Of Substance Abuse In Emergency

**Aim**
- ↓ morbidity & mortality; ↓ risk of relapse; consider plan short & long term

**Assessment & Management issues:**
- Infections: soft tissue; other (endocarditis, HIV, hepatitis, etc.)
- Overdose vs Intoxication vs Withdrawal vs Other (Other e.g. subdural hematoma from fight, stroke, infectious component)
- Consider detailed assessment if:
  - Acknowledgment of drug use
  - Physical signs etc. track marks, nasal septom atrophy
  - Urine drug screen +ve (Note: emergency drug screen is unlikely to significantly affect impact upon management in the ER.)

**Approach for engagement**
- Accept patient autonomy
- Non-judgemental approach/Motivational Interviewing
- Collaborative approach with patient
- Confidentiality
- Proactive discussion on meds and behaviours

**Managing Potentially Violent Patient**
- Have a staff & public safety plan!
- Maintain autonomy & dignity of users, intervene early, approach patients with caution, don’t startle, avoid provocation, be aware of your own demeanour, use calm language, don’t make promises, provide options and choice, remove dangerous objects from your person, know exits, don’t turn back on patient, role for distraction, be firm & compassionate, de-personalize issue; avoid confronting, but if necessary maintain distance, avoid corners/cornering, explain intention, ask for facts & encourage reasoning, ask for weapons to be put down not handed over, know how to call for help.

**Intoxication: Common Presentations – Possible Causes**

- **Unresponsive:** hypoglycemics, narcotics, alcohol, cyanide, carbon monoxide, tranquillizers, hydrocarbons, barbiturates
- **Seizures:** hypoglycemics, amphetamines, cocaine, hallucinogens, anticoagulants, TCPS, PCP, mescaline; benzodiazepine withdrawal especially high dose; alcohol withdrawal tremors/seizures
- **Hyperthermia:** salicylates, Ecstasy, atropine, amphotericin B, phenytoin
- **Hypothermia:** ethanol, narcotics, sedatives/hypnotics, TCPS, barbiturates, carbon monoxide.
- If mixed presentation consider possibility of mixed ingestion

**Intoxication Management - [Primary assessment ABCs]:** airway, breathing, circulation

<table>
<thead>
<tr>
<th>Opioids</th>
<th>Intoxication (coma, lethargy, stupor; constipation, N&amp;V; flushing, prunus; hypotension; miosis; resp depression)</th>
</tr>
</thead>
<tbody>
<tr>
<td>BP:</td>
<td>+</td>
</tr>
<tr>
<td>RR:</td>
<td>-</td>
</tr>
<tr>
<td>Temp:</td>
<td>↓</td>
</tr>
<tr>
<td>Pupil-</td>
<td>↓</td>
</tr>
<tr>
<td>Diaphore-</td>
<td>↓</td>
</tr>
<tr>
<td>&amp; depressed,</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Consult detailed assessment if:</td>
</tr>
<tr>
<td></td>
<td>- Acknowledgment of drug use</td>
</tr>
<tr>
<td></td>
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<tr>
<td></td>
<td>- Urine drug screen +ve (Note: emergency drug screen is unlikely to significantly affect impact upon management in the ER.)</td>
</tr>
</tbody>
</table>

**Stimulant**

<table>
<thead>
<tr>
<th>Stimulant</th>
<th>Supportive tx (agitation, diaphoresis, hypertension, hyperthermia, mydriasis, psychosis, seizures, THR)</th>
</tr>
</thead>
<tbody>
<tr>
<td>BP:</td>
<td>+</td>
</tr>
<tr>
<td>RR:</td>
<td>+</td>
</tr>
<tr>
<td>Temp:</td>
<td>+</td>
</tr>
<tr>
<td>Pupil-</td>
<td>-</td>
</tr>
<tr>
<td>Diaphore-</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>Consider N-acetyl-para-aminophenol level if overdose cause unknown (no acetylaminophenol as possible agent).</td>
</tr>
<tr>
<td></td>
<td>CAUTION: depending on timing, a ‘non-toxic’ level can become toxic; consult poison centre</td>
</tr>
</tbody>
</table>

**Alcohol**

<table>
<thead>
<tr>
<th>Alcohol</th>
<th>Supportive tx (immediate life-threatening complications in kids are respiratory depression &amp; hypoglycaemia)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>airway, IV access (fluid management); correct hypoglycaemia with dextrose soln &amp; electrolytes, thiamine</td>
</tr>
</tbody>
</table>

**Hemodialysis may be an option in life threatening intoxication. Hemodialysis may be useful to remove barbiturates, sedatives, hypnotics, anticoagulants, alcohol, analgesics, solvents, etc.**

**When to Discharge?**
- Consider time from last ingestion.
- Can they walk unaided.

**Lifespan Spectrum of Complications**: Pregnancy - obstetrical complications, fetal distress, stillbirth, low birth weight; adolescent & young adult – self inflicted injuries, homicides, premature morbidity; Later life - decline.

**Acute Alcohol Intoxication**
- ↓ Blood Alcohol Levels (BAL)
  - <0.08% (<1.0mmol/l): impairment in skills, ↑ talkativeness, relax; <100mg/dl: impaired judgement, ↓ coordination & reactions, mood/personality change; <200 mg/dl: amnesia, diplopia, N&V; <300-500 mg/dl: ↑ risk of respiratory depression, coma & death
  - DSM-IV: A) recent EOH. B) clinically significant behavioural/psychological change e.g. aggression, mood, impulsivity, C) one or more of [1. slurred speech, 2. coordination, 3. unsteady gait, 4. nystagmus, 5. ↓ attention/memory, 6. stupor, coma, other.]
  - Other effects & associations: Respiratory, GI, alcoholic hepatitis. ↑ risk of injury, ↑ risk of life years lost, ↑ violent crimes.
  - When to let them leave the emerg? Consider holding till they can walk unassisted.

**Management of Cocaine Body Packers**

**RxFiles - Substance Abuse**
- o if using cocaine/other stimulants then detox is the only option. Rapid detox is not recommended during pregnancy.
- o Patients should only be "nocking" (falling asleep on methadone) if the dose is too high, they are a new start, or if they using BZD’s at the same time – may consider a tox screen to assess if patient is also using any other drugs.
- o In Saskatoan methadone doses go up by 10mg increments and down by 5mg increments for dose adjustments with some physicians.
- o Using both oral LA morphine (Kadian) in addition to methadone when starting patients is sometime done to prevent acute withdrawal & allow for methadone titration ( e.g. a few weeks of dual treatment); controversial.
- o IV drug abusers: considerations see reference
- o Other substances of abuse: volatile inhalants, Listerine mouthwash
- o Be weary of illegimate on-line pharmacies which supply controlled substances without a prescription.

**For table outlining Toxic Syndromes or “toxidromes”, see Goldfrank’s Toxicologic Emergencies**
**UK Study Ranking - most harmful drugs: overall, to individual and to society:**

- BACKGROUND: Proper assessment of the harms caused by the misuse of drugs can inform policy makers in health, policing, and social care. We aimed to apply multicriteria decision analysis (MCDA) modelling to a range of drug harms in the UK. METHODS: Members of the Independent Scientific Committee on Drugs, including two invited specialists, met in a 1-day interactive workshop to score 20 drug harms on 14 criteria: nine related to the harms that a drug produces in the individual and seven to the harms to others. Drugs were scored out of 100 points, and the criteria were weighted to indicate their relative importance. FINDINGS: MCDA modelling showed that heroin, crack cocaine, and metamfetamine were the most harmful drugs to individuals (part scores 34, 37, and 32, respectively), whereas alcohol, heroin, and crack cocaine were the most harmful to others (46, 21, and 17, respectively). Overall, alcohol was the most harmful drug (overall harm score 72), with heroin (55) and crack cocaine (54) in second and third places. INTERPRETATION: These findings lend support to previous work assessing drug harms, and show how the improved scoring and weighting approach of MCDA increases the differentiation between the most and least harmful drugs. However, the findings correlate poorly with present UK drug classification, which is not based simply on considerations of harm. FUNDING: Centre for Crime and Justice Studies (UK).

**Salvia leaves** (magic mint, diviner’s sage, sally D, purple sticky)
- Member of mint family, smoked or chewed. Contains salvinorin A, a selective kappa opioid receptor antagonist; does not bind to SHT2A receptors like other hallucinogens. Halucinogen effects rapid & last <30min. SE: dysphoria, diuresis, chills, headache, insomnia, exhaustion, loss of control, impaired coordination & judgement (= DANGEROUS!). Sensationalized in SK by Saskatoon media DJ who smoked herb on live broadcast in Dec 2010.

**Angel’s Trumpet** (Brugmansia suaveolens, Datura stramonium, Devil’s trumpet)
- Alkaloid (atropine, scopolamine) containing flowers & stem. Each flower contains 0.2mg atropine & 0.65mg scopolamine; 3-6 flowers causes hallucinations; 9+ flowers can be life-threatening. Commonly ingested by making a tea. Effects in 1-4hrs; duration 24hrs. SE: mydriasis, dry mouth, tachycardia, fever, erythema, constipation, 😵‍♀️‍♂️‍♂️‍♂️‍♂️ thirst, retrograde amnesia & anxiety; arrhythmias & CV collapse / respiratory failure in high doses. (= DANGEROUS!)

**Bath Salts** PABS for abuse: are actually designer stimulants pu. eg. metzaphedroan (MDPV, MPO), metzaphedroan-M-Cat, Mow, 4-MC, Bibles, metzaphedroan, metzaphedroan-Methamphetamine, bk-MDMA, M1, Explorers being sold in shops & online. Cloud 9, Ivory Wave, Vanilla Sky, Purple Wave, Blizzard, Blue Silk, etc.

**Spice** (“legal highs”): a range of synthetic drugs; combustable vegetable material sprayed with a variety of chemicals, each containing an alkaloid (atropine, scopolamine) or a range of synthetic drugs that mimic the effects of these alkaloids. Sensitized by PABS, abuse involves smoking or injecting a variety of chemicals. Effects in 1-4hrs; duration 24hrs. SE: mydriasis, dry mouth, tachycardia, fever, erythema, constipation, 😵‍♀️‍♂️‍♂️‍♂️ thirst, retrograde amnesia & anxiety; arrhythmias & CV collapse / respiratory failure in high doses. (= DANGEROUS!)

**Kratom** – (e.g. methylenedioxpyrovalerone-MDPV, NRG-1; mephedrone-M-Cat, Meow, 4-MC, Bibles, methylenedioxpyrovalerone, bk-MDMA, M1, Explorers) being sold in shops & online. Cloud 9, Ivory Wave, Vanilla Sky, Purple Wave, Blizzard, Blue Silk, etc.

**Miscellaneous Other Drug Considerations / Cautions**
- Salbutamol: sometimes used to enhance effect of crack cocaine
- Benzodiazepines: calming effect
- Bupropion: sometimes messed with & snorted for high
- Quetiapine: may enhance heroin effects & risk
- Vitamin C sometimes used as an acidifier to help dissolve substances (i.e. crack cocaine, heroin) for injection

**Harm reduction recommendations for substance abusers at risk of HIV, HCV & other harms (CATIE).**
- It’s OK to say “No”
- “I didn’t realize how big a problem Rx opioids were on the street”

**Extravas Continued:**

**Videos – informational related to teen drug recreational use (for teens, by teens) - Canada**
- Unwasted - 4 videos by teens regarding gambling, alcohol, marijuana, opioids/oxycontin:
  - http://unwasted.ca/
  - or http://unwasted.ca/the-pressures

**Videos – other**
- Addressing the risk of diversion of Rx drugs; secure storage of medications. Powerful:
  - http://www.youtube.com/watch?v=sunBD2e1wthp
  - http://www.youtube.com/watch?v=unbD2e1w
Guidelines of interest:

Other Links of Interest:


SK Health Links:
www.saskatchewan.ca/addictions; the target audience is the public.

Direct links re Crystal Meth:


of alcohol or these drugs with Xyrem could cause respiratory depression and impaired consciousness.

Faust JS, Du C, Mayes KD, et al. Mortality From Drug Overdoses, in the Treatment of Narcolepsy and Cataplexy, has received an FDA warning cautioning used to treat narcolepsy and cataplexy, has received an FDA warning cautioning...


References for Substance Use Disorder/Addiction:
eMedicine from WebMD. Alcohol and Substance Abuse Evaluation: http://emedicine.medscape.com/article/805084-print