1) Definitions

Misuse: sporadic use without apparent adverse consequence; will or unintentional

Addiction: frequent consumption or use despite adverse consequences or changes in life activities.

Pseudoaddiction: drug-seeking behaviour mimicking addiction resulting from under-treatment of pain. (But i/o pain +, e.g. dual diagnosis).

2) Statistics From the Literature (CADMUS 2011/2012)

- The prevalence of past 12 month cocaine (1.1%), ecstasy (0.6%), speed (0.5%) and methamphetamine (0.2%) compared to rates reported in 2004.
- The rate of drug use: cocaine or crack, speed, ecstasy, hallucinogens (including salvia) or heroin by youth 15-24 yrs is much higher (6.5%) than reported by adults ≥25 yrs (1.2%).
- The overall rate of psychocactive drug use, including opioids was ~24% for >15yrs.
- Of non-medical opioid users aged by students were obtained from 4.
- The prevalence of harm 4x higher among youth aged 15 to 24 yrs (5.5%) than adults ≥16yrs (4.0%).

3) Alcohol (ETHO)

- Ethanol is a leading cause of serious injury, accidental death, birth defects.
- A standard drink = 13.7 grams (0.6 ounces) of pure alcohol or:
  - 12-ounces of wine, regular beer (5% ETHO)
  - 5-ounces of hard liquor (12% ETHO)
  - 1-ounces of a "shot" of 80-proof (40% ETHO) distilled spirits or liquor (e.g. gin, rum, vodka, whiskey).

Low-risk drinking: describes a lower long-term risk pattern.
- In any day: no more than 2 drinks for ♀; no more than 3 for ♂ & no more than 10 drinks per week for ♀; for 15 drinks per week for ♂.

Who should not drink: Children, adolescents, individuals of any age who cannot limit their drinking.

- Pregnancy: risk of FAS with heavy drinking. Pre-conception: limit intake.
- Individuals with pre-existing health conditions, or taking part in activities that require attention, skill, or coordination.
- Those at high risk of D&I: drinks + OTC drugs e.g. du Sauthon, metamizole, CNS depressants?
- Precaution also in those with high-dose acetaminol use.
- Individuals with certain medical conditions e.g. pancreatitis, cirrhosis, hepatitis?
- Persons recovering from alcoholism, or having family hx of alcoholism.

Binge drinking: a consumption pattern that brings the blood ETHO level to ≥0.08% & "5 short term risk! Corresponds to ≥5 drinks on one occasion for; or ≥4 single occasion for, generally about 2 weeks.

Related: malnutrition of others, e.g. caregiver child abuse; intimate partner violence.

- Psychosocial issues: "escape", depression, self-esteem, suicidal ideation.
- High risk behaviours: sexual (abuse, unplanned/unwanted/unprotected), financial, criminal, driving with intoxicated driver; suicide attempts &/or non-compliance.

Adolescents: especially vulnerable (neurodevelopment & behaviour)

- Problems: health, nutrition, violence/aggression, exposure, ca. impaired drivers.

Recovery must be functional not just stopping or decreasing use (e.g. identity skills lacking & move client toward achieving functioning.)

Toxic Alcohols e.g. methanol: look for: contact poison centre re. management.

4) Addiction Screening: CAGE, AUDIT, Other

- CAGE: have you ever felt the need to Cut down on your drinking/drug use?
- AUD: do you get Annoyed when others criticize your drinking/drug use?
- GAGE: have you ever felt Guilty about your drinking/drug use for any reason?
- E: eye-opener: have you ever felt the need for a drink early in the morning to decrease hangover or withdrawal?

When assessing a patient's answers to the above questions: one YES suggests caution; ≥ 2 YES suggests strong caution/need for vigilance.

AUDIT: 10 questions to assess alcohol use patterns.

13) How often do you take ethanol containing alcohol?
12) How many drinks do you have on a typical day?
11) How often do you have 4+ drinks on one occasion?
10) How often do you drink more than you planned to stop drinking?
9) How often did you fail to do what was expected?
8) How often have you wanted to decrease drinking?
7) How often have you had a feeling of guilt after drinking?
6) How often have you had a drink before or after getting up?
5) How often have you felt guilty about your drinking/drug use?
4) How often have you been bothered by your drinking/drug use?
3) How often have you felt that you needed to cut down?
2) How often have you been unable to control your drinking/drug use?
1) How often have you been drunk or had a problematic drink?

Total score: 0-yr; risk score: -0-5; 6-10: score for ♀; 5-9: score for ♂.

How many times in the past year have you had a problem drinking/drug use?

(How many times in the past year have you used an illegal drug or a prescription med for nonmedical reasons?)

5) Universal Precautions - Opioid Pain Medicine

- Assumes that one cannot always determine who will become a problem patient; thus, suggests a minimum level to assess & manage risk.

1. Make a diagnosis with appropriate differential (pain + sensory & emotional)
2. Psychological Assessment including Risk of Addictive Disorders: Coping issues. Include discussion of urine testing (UDT)
3. Informed Consent &/or use of a Treatment Agreement (samples)
4. Pre/Post-Treatment Assessment of Pain & Function
5. Appropriate Trial of Opioid Therapy +/- Adjuncts +/- Non-drug Tx
6. Have an "Exit Strategy" for discontinuing opioids if lack benefit
7. Reassessment of Pain Score & Level of Function
8. Regularly assess the "Five As": Analgesia, Activity, Adverse effects, Aversion behavior & Accurate medical records.
9. Periodically review pain diagnosis & comorbidity concerns, including addictive disorders. Use a Termination of Controlled Substances Agreement as needed.

10. Document: assessment, discussions & progress

6) Red Flags - Irritant Rx Drug Use

Consider Discontinuation / Specialist Referral if...

1. Prescriptions from multiple physicians (check profile when available)
2. Frequent visits to emergency room requesting drugs of abuse
3. Requests from patients from outside local area! Check picture ID!
4. Stolen, modified or tampered or prescriptions
5. Polypharmacy with CNS depressants, habituating substances
6. Forgery, selling, dealing, or using other medications person
7. Injecting oral or chewing long-acting formulations

Reassess Regimen & Treatment Agreement...

1. Rapid ↑ in opioid doses in chronic non-cancer pain
2. Frequency early refills, or excuses for running out of or losing Rx's
3. Frequent changes of the opioid prescribed
4. Aversion to concurrent recommended non-opioid treatment or UDT
5. Request for brand-name vs generic &/or long-acting products
6. Lack of request for adjunct analgesics refills
7. Missed follow-up visits. 8. Suspicion non-compliance with regimen

Emerg Presentation-Possible Causes: "Unresponsive" hypoglycemia, opioid, ETOH, oxides, CO, tranquilizers, hypoxicnuresias. + or Alcohol...
**SUBSTANCE ABUSE/ADDICTION: Overview & Treatment Considerations**

**Drugs/Substances of Abuse & slang terms**

- **Cannabisoids**: THC, delta-9-tetrahydrocannabinol, worst brain damage.
- **Hashish**: smoke, hash, weed, ganja.
- **Marijuana**
  - inhale: huff, smoke, blunt, joint, spliff, pipe, bong.
  - SMOKING.
  - synthetic: **Spice**, **K2**.
  - (may be ‘spaced out’ by cannabis, meth, methedrine, pesticides; ganja).
- **H收拾inogens**
  - **LSD**
    - acid, acid-bath, acid-bath.
  - **Mescaline**: T.L.D.
  - **Codeine**
    - w/toluen, paint, lacquer, glue.
  - **Steroids, Anabolic**: Oxycodone, hydro.
  - **VOC** Inhalants:
    - **Volatile Inhalants**
      - **Toluene**, **Benzene**, **Toluene**.
    - **Solvents, Gases, Nitrites**
      - **K**, **Ketamine**.
      - **Butane**, **Propane**.
    - **Substances**
      - **Erythrolum coca**: With cocaine, meth, methylphenidate; methylenedioxymethamphetamine.
      - **Butane**, **Propane**.
  - **DEA**
    - **DEA**.
    - **DEXEDRINE**.
    - **Rohypnol**, GHB, ketamine.
    - **Ike**, **387**.
  - **Legal**: Synthetic:
    - **Ecstasy**.
    - **MDMA**.
  - **PO**
    - **PO**.

**Signs/Symptoms, Overuse; Health Concerns**

- **Euphoria, impaired learning & reaction time; confusion, panic, coma, death**.
- **Pulmonary oxycodone**.
- **Psychosis, risk, renal synths**.
- **ASSOC. problems**, physical, financial, legal & social.
  - (e.g. failure to achieve).
- **Testosterone**.
  - **Gynecomastia**.
  - **Hypertension**.

**Management & Treatment Options; Comments**

- **Acute intoxication**: 1-3 hour; similar to alcohol; changes in mood, perception & *.{toluene}.
- **Withdrawal syndrome**: controversial.
  - Cognitive Behavioural Therapy (CBT) & supportive treatment.
  - Legal medicinal cannabis alternatives.
  - Consider if indicated: see (i.e., life use often of *{risk} for other substance abuse; gateway drug).
  - Uringe drug testing (UDT) available but remains +ve: 1-3 days after substance use, ~10 days casual use, 2-4 weeks in heavy use, months in chronic heavy use.

**Mood Alterants**

- **Other**: Used in treatment.
  - **Psychosis, cognitive & C og**.
  - **Other**: H48h.

**HIV/AIDS**

- **HIV**, **AIDS**.
- **PLAQUE**.
- **LED**.
- **MMM**.
- **LED**.

**Codeine**

- **Addiction**: Toluene, paint, lacquer, glue.
- **VOC** Inhalants:
  - **Toluene**, **Benzene**, **Toluene**.
  - **Solvents, Gases, Nitrites**
    - **K**, **Ketamine**.
    - **Butane**, **Propane**.
  - **Substances**
    - **Erythrolum coca**: With cocaine, meth, methylphenidate; methylenedioxymethamphetamine.
    - **Butane**, **Propane**.
  - **DEA**
    - **DEA**.
    - **DEXEDRINE**.
    - **Rohypnol**, GHB, ketamine.
    - **Ike**, **387**.
  - **Legal**: Synthetic:
    - **Ecstasy**.
    - **MDMA**.
  - **PO**
    - **PO**.

**Signs/Symptoms, Overuse; Health Concerns**

- **Euphoria, impaired learning & reaction time; confusion, panic, coma, death**.
- **Pulmonary oxycodone**.
- **Psychosis, risk, renal synths**.
- **ASSOC. problems**, physical, financial, legal & social.
  - (e.g. failure to achieve).
- **Testosterone**.
  - **Gynecomastia**.
  - **Hypertension**.

**Management & Treatment Options; Comments**

- **Acute intoxication**: 1-3 hour; similar to alcohol; changes in mood, perception & *.{toluene}.
- **Withdrawal syndrome**: controversial.
  - Cognitive Behavioural Therapy (CBT) & supportive treatment.
  - Legal medicinal cannabis alternatives.
  - Consider if indicated: see (i.e., life use often of *{risk} for other substance abuse; gateway drug).
  - Uringe drug testing (UDT) available but remains +ve: 1-3 days after substance use, ~10 days casual use, 2-4 weeks in heavy use, months in chronic heavy use.

**APIs**

- **Other**: Used in treatment.
  - **Psychosis, cognitive & C og**.
  - **Other**: H48h.

**HIV/AIDS**

- **HIV**, **AIDS**.
- **PLAQUE**.
- **LED**.
- **MMM**.
- **LED**.

**Codeine**

- **Addiction**: Toluene, paint, lacquer, glue.
- **VOC** Inhalants:
  - **Toluene**, **Benzene**, **Toluene**.
  - **Solvents, Gases, Nitrites**
    - **K**, **Ketamine**.
    - **Butane**, **Propane**.
  - **Substances**
    - **Erythrolum coca**: With cocaine, meth, methylphenidate; methylenedioxymethamphetamine.
    - **Butane**, **Propane**.
  - **DEA**
    - **DEA**.
    - **DEXEDRINE**.
    - **Rohypnol**, GHB, ketamine.
    - **Ike**, **387**.
  - **Legal**: Synthetic:
    - **Ecstasy**.
    - **MDMA**.
  - **PO**
    - **PO**.

**Signs/Symptoms, Overuse; Health Concerns**

- **Euphoria, impaired learning & reaction time; confusion, panic, coma, death**.
- **Pulmonary oxycodone**.
- **Psychosis, risk, renal synths**.
- **ASSOC. problems**, physical, financial, legal & social.
  - (e.g. failure to achieve).
- **Testosterone**.
  - **Gynecomastia**.
  - **Hypertension**.

**Management & Treatment Options; Comments**

- **Acute intoxication**: 1-3 hour; similar to alcohol; changes in mood, perception & *.{toluene}.
- **Withdrawal syndrome**: controversial.
  - Cognitive Behavioural Therapy (CBT) & supportive treatment.
  - Legal medicinal cannabis alternatives.
  - Consider if indicated: see (i.e., life use often of *{risk} for other substance abuse; gateway drug).
  - Uringe drug testing (UDT) available but remains +ve: 1-3 days after substance use, ~10 days casual use, 2-4 weeks in heavy use, months in chronic heavy use.

**APIs**

- **Other**: Used in treatment.
  - **Psychosis, cognitive & C og**.
  - **Other**: H48h.

**HIV/AIDS**

- **HIV**, **AIDS**.
- **PLAQUE**.
- **LED**.
- **MMM**.
- **LED**.

**Codeine**

- **Addiction**: Toluene, paint, lacquer, glue.
- **VOC** Inhalants:
  - **Toluene**, **Benzene**, **Toluene**.
  - **Solvents, Gases, Nitrites**
    - **K**, **Ketamine**.
    - **Butane**, **Propane**.
  - **Substances**
    - **Erythrolum coca**: With cocaine, meth, methylphenidate; methylenedioxymethamphetamine.
    - **Butane**, **Propane**.
  - **DEA**
    - **DEA**.
    - **DEXEDRINE**.
    - **Rohypnol**, GHB, ketamine.
    - **Ike**, **387**.
  - **Legal**: Synthetic:
    - **Ecstasy**.
    - **MDMA**.
  - **PO**
    - **PO**.

**Signs/Symptoms, Overuse; Health Concerns**

- **Euphoria, impaired learning & reaction time; confusion, panic, coma, death**.
- **Pulmonary oxycodone**.
- **Psychosis, risk, renal synths**.
- **ASSOC. problems**, physical, financial, legal & social.
  - (e.g. failure to achieve).
- **Testosterone**.
  - **Gynecomastia**.
  - **Hypertension**.

**Management & Treatment Options; Comments**

- **Acute intoxication**: 1-3 hour; similar to alcohol; changes in mood, perception & *.{toluene}.
- **Withdrawal syndrome**: controversial.
  - Cognitive Behavioural Therapy (CBT) & supportive treatment.
  - Legal medicinal cannabis alternatives.
  - Consider if indicated: see (i.e., life use often of *{risk} for other substance abuse; gateway drug).
  - Uringe drug testing (UDT) available but remains +ve: 1-3 days after substance use, ~10 days casual use, 2-4 weeks in heavy use, months in chronic heavy use.

**APIs**

- **Other**: Used in treatment.
  - **Psychosis, cognitive & C og**.
  - **Other**: H48h.
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, fight, stroke, infectious component)
- **Consider detailed assessment if:**
  o Acknowledgment of drug use
  o Physical signs e.g. track marks, nasal septum atrophy
  o Urine drug screen +ve (Note: emergency drug screen is unlikely to significantly affect impact upon management in the ER.)

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

- **Managing Potentially Violent Patient**
  o Have a staff & public safety plan!
  o 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/encroaching, 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, tranquilizers, hydrocarbons, barbiturates
- **Seizures:** hypoglycemics, amphetamines, cocaine, hallucinogens, anticonvulsants, TCAs, PCP, mescaline; benzodiazepine withdrawal especially high dose; alcohol withdrawal tremors/seizures
- **Hyperthermia:** salicylates, Ecstasy, atropine, amphetamine B phenytoin
- **Hypothermia:** ethanol, narcotics, sedatives/hypnotics, TCAs, barbiturates, carbon monoxide.
- **If mixed presentation consider possibility of mixed ingestion!**

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

### Opioids
- **BP:** ↓
- **HR:** ↓
- **RR:** ↓
- **Temp:** ↓
- **Pupillary:** ↓
- **Diaphoresis:** & depressed, hypoflexia

**Management:**
- **Intoxication (coma, lethargy, stupor, constipation, N&V, flushing, pruritis, hypotension, miosis, respir; depression):**
  - Supportive tx; regular assessment of cardio/respiratory safety
  - Airway protection; correction of hypoxia
  - Naloxone option: short term duration; balance reversal of resp depression with opioid withdrawal

### Stimulant
- **BP:** ↑
- **HR:** ↑
- **RR:** ↓
- **Temp:** ↓
- **Pupillary:** ↓
- **Diaphoresis:** & depressed, hypoflexia

**Management:**
- Oral diazepam for agitation & hypertension; e.g., cocaine inhaled
- IV diazepam or midazolam sub-cut if severe agitation/analgesia

### Alcohol
- **BP:** ↓
- **HR:** ↓
- **RR:** ↓
- **Temp:** ↓
- **Pupillary:** ↓
- **Diaphoresis:** ↑
- **G-Blockers:** (generally avoid β-blockers as will result in unopposed α constriction)

**Management:**
- Supportive tx (immediate life-threatening complications in kids are respiratory depression & hypoglycaemia)
  - Airway
  - IV access (fluid management)
  - Correct hypoglycaemia
  - Monitor: hypotension, hypothermia, cardiac, electrolytes
  - HTN: benzodiazepines; alternatively nitroprusside, NTG
  - Consider plan short & long term

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

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

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

**Acute Alcohol Intoxication**
- **Blood Alcohol Levels (BAL):** <20mg/dL (<1.99mmol/L) = impairment in skills, ↑ talkativeness, relax; ↑ 200 mg/dL = amnesia, disorientation, N&V; ↑ 300-500 mg/dL = ↑ risk of respiratory depression, coma & death

**DSM-IV:**
- A recent EIOH, B clinically significant behavioural/psychological change e.g., aggressive, moody, impaired C one or more of [1. slurred speech, 2. coordination, 3. unsteady gait, 4. nystagmus, 5. attention/memory, 6. slurred/sober, coma, other.]

**Other effects & associations:** Respiratory, GI, alcoholic hepatitis. ↑ risk of injury, ↑ risk of life years lost, ↑ violent crimes.

**Tx:** 1) Stabilize patient: airway, resp fx, prevent aspiration, mechanical ventilation prn, IV access & correction of hypoglycaemia, electrolytes (dextrose, Mg, folate, thiamine, multivitamins); 2) Sedate patient (droperidol, haloperidol); 3) evaluate for chronic EIOH abuse.

**Management of Cocaine Body Packers:**
- Hx: # type of packets; other agents; GI symptoms: Investigations: ECG, CBC/SCR, etc., chest & abdomen x-rays; Management if asymptomatic: admit, oral gastric lavage till all packets passed; 4 hr observations of vitals after packets passed; light/normal diet, IV access, daily evaluation for intoxication/bowel obstruction.

**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.

**Substance Abuse in Older Adults:**
- 2005 USA data on treatment programs: Alcohol only (48%), alcohol + 2nd illicit substance (52%); 2nd substance cocaine 42%, marijuana 25%, opiates 16%, stimulants 5%, other 10%.

**Signs:** headache, cognitive/memory ability, Unique features: tendency to drink smaller quantities more often, DI with ↑ metabolism of other drugs, Cx in sleep patterns.

**ALDH-alcohol dehydrogenase:** SH T-segmentor fx□function HCV-hepatitis C Virus HX-history NIDU-non-injecting drug users Qtr=quarter RR=respiratory rate

**Acknowledgements:** We would like to thank those who contributed to the development, review for this chart. SHR Addictions: Christy Becker, Terry Patzer, Dr. Peter But (FM), Dr. Kevin Kok (Psychiatry). Dr. Morris Markentin (FM, Saskatoon). Dr. Brian Fern, Other: Dr. M. Varenbut (Toronto), Dr. J. Witt (Emergency physician, Saskatoon), Wendy Pecho (Prince Albert) and the RxFiles Advisory Committee. Prepared by Loren Regier BSP BA, Brent Jensen BSP
Buprenorphine/Naloxone for Opioid Dependence: Clinical Practice Guideline CAMH:

Guidelines of interest:
- Buprenorphine/naloxone
- Harm
- Miscellaneous
- Poppers
- Dimethoxybenzeneethanamine (2 Spice)
- Angel's Trumpet
- Salvia

Extras Continued:

- Buprenorphine/naloxone for opioid dependence: Clinical Practice Guideline CAMH.
- Guidelines of interest: Buprenorphine/naloxone, Harm, Miscellaneous, Poppers, Dimethoxybenzeneethanamine (2 Spice), Angel's Trumpet, Salvia.

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 drugs on 15 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 5HT2A 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: (Angel's tears, Apple of Peru, Green Dragon, Devil's trumpet)
- Alkaloids (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 24+hrs. SE: mydriasis, dry mouth, tachycardia, fever, erythema, constipation, exhaustion, loss of control, impaired coordination & judgement (= DANGEROUS);

“Bath Salts” PABS for abuse: are actually designer stimulants (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 24+hrs. SE: mydriasis, dry mouth, tachycardia, fever, erythema, constipation, exhaustion, loss of control, impaired coordination & judgement (= DANGEROUS);

Common in UK, now USA via New Orleans, India, China.


Two common ingredients: MDPV (a dopamine & noradrenpine (NE) reuptake inhibitor ⇒ stimulant); methedrone: MAO effects that ↑ 5HT, NE, & DA at neuronal synapses (AEs: agitation, aggression, anxiety, bruxism, chest pain, confusion, delirium, headache, hyperreflexia, ↑B/P, N/V, palpitations, peripheral vasocstriction, paraesishes, psychosis, seizure, ↑HR. Sep/11: DEA invoked its emergency authority necessary to protect the public & will make Schedule 1 substances in 30 days from now.


Dimethoxybenzeneethanamine (2-CB) — (note 2-CB is a misnomer) a synthetic hallucinogen & club drug; sometimes sold as ecstasy; showed up in Prince Albert, SK, Feb 2017.

Poppers – volatile alkyl nitrite compounds inhaled for enhanced sexual experience. AE: foveal maculopathy (vision disturbance).

Miscellaneous Other Drug Considerations / Cautions
- Salbutamol: sometimes used to enhance effect of crack cocaine
- Benzodiazepines: calming effect
- Bupropion: sometimes used with & snorted for high
- Quetiapine: may enhance heroin effects & risk


Oxymorphone OPANA ER Abuse
- Thomboitic thrombocytopenic purpura (TTP) strongly associated with injection abuse of OPANA ER.

Buprenorphine/naloxone (ZUBSOLVE), 1.4mg/0.36mg – new SL tab formulation (available in USA); ↑bioavailability & may taste better than Suboxone. (Achieves plasma concentrations = 2/0.5mg and 8/2mg strengths of other Brand tabs.)

Buprenorphine/Naloxone for Opioid Dependence: Clinical Practice Guideline CAMH.
- Guidelines of interest: Buprenorphine/naloxone, Harm, Miscellaneous, Poppers, Dimethoxybenzeneethanamine (2 Spice), Angel's Trumpet, Salvia.

Synthetic Cannabinoids – common in herbal incense products
- Full agonists of CB1 & therefore ↑potential for overdose & toxicity
- ↑association with seeking medical attention. AE:s agitation, altered time perception, anxiety, dysphoria, ↑B/P, listlessness, hallucinations/psychois, nausea, paranoia, seizures, tachycardia.
- Marijuana extraction/concentration ⇒ production of very highly concentrated levels (80-90%) called "Shatter"; easily over consumed resulting in overdose / emergency visits

Videos – informational related to teen drug recreational drug use (for teens, by teens) - Canada
- Unwasted - 4 videos by teens regarding gambling, alcohol, marijuana, opioids/oxycotin: http://unwasted.ca/; or http://unwasted.ca/the-pressures (★★★★★)
- Your when moment (videos from Nova Scottians): http://changingtheculture.ns.ca/

Videos – other
- Addressing the risk of diversion of Rx drugs; secure storage of medications. Powerful. http://www.youtube.com/watch?v=snbJDZe1w http://www.youtube.com/watch?v=snbJDZe1w

Guidelines of interest:

Other Links of Interest:
- http://addictionlibrary.org/
Canada Health Mar 11: Salvia divinorum (S. divinorum) is a species of sage belonging to the mint family. Some street names for S. divinorum include: Sally, Lady Sally, Maria pastora, ska pastora, diviner’s sage, magic mint, puff, incense special, and salvia. Canadians are cautioned against the use of products containing S. divinorum and salviaonline A because these products are known to cause hallucinations and are known to be sold by Saint S Sinners Ltd., 1715 Centre Street N W., Calgary, Alberta. These products, commonly known as ‘‘poppers’’ are used by consumers to get ‘‘high’’ and may pose serious risks to health if they are inhaled or swallowed.

Canada Health Mar 13: Eight products labelled as leather cleaners or liquid incense contain, or are alleged to contain, nitrile nitriles were being sold by Saints N Sinners Ltd, 1715 Centre Street N W., Calgary, Alberta. These products, commonly known as ‘‘poppers’’ are used by consumers to get ‘‘high’’ and may pose serious risks to health if they are inhaled or swallowed.

Canada Health Dec 14: is following up with Rapha Biotech Inc. Rapha Diet (630 mg, 270 Capsules) -- undelivered ingredients: amphetamin, methamphetamine.

Canada Health Jun 17: is advising health care professionals and Canadians that the Canadian authorized version of NARCAN will transition onto the market by July 5, 2017. NARCAN is a nasal spray that temporarily reverses the effects of an opioid overdose.


March 11, 2010 (Savannah, Georgia) — Barbiturates are still the drugs of first choice among adults 60 years and older who commit suicide by overdose, despite a significant decrease in their use since 1990. In a study presented here at the American Association for Geriatric Psychiatry’s 2010 Annual Meeting, Robert C. Abrams, MD, Well Cornell Medical College and New York Presbyterian, in New York City who overdid between 1990 and 2006 used barbiturates.

Barbier and colleagues analyzed data from the National Treatment Agency for Substance Misuse in the United Kingdom to examine prescription drug misuse among people aged 50 years and older who died of suicide between 1990 and 2006. They found that barbiturates were the drugs of first choice among adults 60 years and older who committed suicide by overdose, despite a significant decrease in their use since 1990.

In the study, the researchers analyzed data from the National Treatment Agency for Substance Misuse in the United Kingdom to examine prescription drug misuse among people aged 50 years and older who died of suicide between 1990 and 2006. They found that barbiturates were the drugs of first choice among adults 60 years and older who committed suicide by overdose, despite a significant decrease in their use since 1990.

The researchers found that barbiturates were the drugs of first choice among adults 60 years and older who committed suicide by overdose, despite a significant decrease in their use since 1990.


Ruzycki S, Yaman F. Menausy misuse. CMAJ. 2016 Jun 14;188(9):675.


