Alcohol and other substance use disorders in primary care

Vicki Macfarlane

CADS
Howick
Orakei
K Rd
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Summary

- 1. Addiction
- 2. Alcohol (sorry)
- 3. Opiates
- 4. Benzodiazepines, methamphetamine and other assorted drugs
Addiction What is it?

Addiction is fundamentally about compulsive behaviour

Doug Sellman The 10 most important things known about addiction *Addiction*, 105, 6–13 2009

What is addiction? NZFP, 34, 77-81 2007
Addiction
Neurobiology

- Almost all drugs of abuse have one final common pathway (and sex, food...)

- Release of dopamine in the nucleus accumbens leads to feeling of well-being or a high

- Repetition of use leads to reinforcement in these pathways

- Cues to using (such as thinking about use or seeing reminders) lead to similar release of dopamine

- This leads to further reinforcement and often relapse in those who are dependent – poor impulse control a major factor in this process
Complex aetiology

- Genetics
- Epigenetics
- Parenting
- Trauma
- Twin studies
- Experimental and recreational use mainly related to shared environmental risk factors 45-70% (parents, SES, religion)
- Development of dependence mainly genetic (40-80%) in combination with environmental especially peers
Diagnosis
Substance use disorders:
- Abuse and Dependence
- DSM Ivr DSM V

Substance-induced disorders:
- Intoxication, withdrawal
- Anxiety, amnesia, dementia, mood, psychotic, sexual dysfunction, sleep...
A maladaptive pattern of substance use leading to clinically significant impairment or distress, as manifested by 1 of the following (in 12 months):

- Role Impairment (e.g. failed work or home obligations)
- Hazardous use (e.g. Driving while intoxicated)
- Legal problems related to alcohol use
- Social or interpersonal problems due to alcohol
Substance dependence

(Maladaptive pattern, CSI/distress, 3 in 12/12):
- Tolerance (increased amount, or getting less effect)
- Withdrawal syndrome or use to avoid Sx
- Using more than intended (amount or time)
- Unsuccessful attempts to cut down on use
- Much time spent in obtaining, using, recovering
- Social/work/hobbies given up/reduced
- Use continued despite physical or psychological consequences

Specify +/- physiological dependence (T or W)

Compulsive behaviours DSM V
Simply

- “Heavy use over time resulting in brain changes and other problems”

- Consider level of use-”average” and binge
Who
Participants looked at images of homeless or drug addicts, some of these parts of the brain failed to engage—those parts involved in social interaction.

Called “dehumanized perception”
Ethnicity of all CADS, Te Atea Marino and Tupu Clients Jan-Dec 2011 by DHB (PIMS)
What?
Use in previous 12 months

- Mystery White Powders: 4.7%
- Ketamine: 5.7%
- Caffeine Tablets: 6.2%
- Nitrous Oxide: 6.3%
- Benzodiazepines: 7.8%
- Opioid Painkillers: 8.7%
- LSD: 10.1%
- Magic Mushrooms: 10.6%
- Amphetamines*: 11.7%
- Electronic Cigarettes: 12.3%
- Cocaine: 16.4%
- Shisha Tobacco: 18.5%
- MDMA*: 23.4%
- Caffeinated Energy Drinks: 45.9%
- Cannabis*: 48.2%
- Tobacco: 56.7%
- Alcohol: 90.8%
NZ

- Alcohol 90%
- Energy drinks 46.2%
- Cannabis 35%
- Opioids 19%
- Tramadol 11.5%
- SC 6.8% (22% lifetime)
- Benzo’s 6.8%
AOD Screens

Distribution of Positive AOD Screens in % (n = 3262)

- Alcohol 70.9%
- Cannabis 16.1%
- Methamphetamine
- Opiates 1.4%
- Benzodiazepines
- Other 3.3%
Global Burden of Disease 2010

- 1. Hypertension 7%
- 2. Smoking 6.3%
- 3. Alcohol use 5.5%

- Proportion of deaths or disease burden caused by specific risk factor

- 1990-childhood malnutrition, pollution, smoking
- Lancet 2012
Alcohol

- Causal factor in more than 200 disease and injury conditions including HIV

- Impact related to amount and pattern of drinking

- Causes death and disability in young people. 25% deaths 20-39 yo attributable to alcohol
12 May 2014 | GENEVA - Worldwide, 3.3 million deaths in 2012 were due to harmful use of alcohol, says a new report launched by WHO today. Alcohol consumption can not only lead to dependence but also increases people’s risk of developing more than 200 diseases including liver cirrhosis and some cancers. In addition, harmful drinking can lead to violence and injuries.
WHO report

- The report also highlights the need for action by countries including:
- national leadership to develop policies to reduce harmful use of alcohol (66 WHO Member States had written national alcohol policies in 2012);
- national awareness-raising activities (nearly 140 countries reported at least one such activity in the past three years);
- health services to deliver prevention and treatment services, in particular increasing prevention, treatment and care for patients and their families, and supporting initiatives for screening and brief interventions.
Deaths under age 65 from major diseases compared with 1970

country: UK
Figure 2: Drugs ordered by their overall harm scores, showing the separate contributions to the overall scores of harms to users and harm to others.

The weights after normalisation (0-100) are shown in the key (cumulative in the sense of the sum of all the normalised weights for all the criteria to users, 46; and for all the criteria to others, 54). CW = cumulative weight. GHB = \(\gamma\) hydroxybutyric acid. LSD = \(\alpha\)-lysergic acid diethylamide.
Real numbers

- 10-20% men and 5-10% women at some point in their lives will meet criteria for alcohol abuse or dependence

- 1500 patients

- 150 alcohol dependent!
3 categories of treatment

- Screening and Brief intervention – FRAMES

- Specialised treatment programmes including withdrawal support – me and CADS counselling

- Mutual help groups 12-step programmes AA, NA
Initial intervention for many alcohol dependent patients is the management of alcohol withdrawal to relieve discomfort, prevent medical complications, and prepare the patient for rehabilitation.
Withdrawal

- Supported withdrawal from alcohol should be advised in patients with alcohol dependence, as a precursor to treatment. Strength of recommendation: STRONG

- Benzodiazepines are recommended as front-line medication for the management of alcohol withdrawal in alleviating withdrawal discomfort, and preventing seizures and delirium. **Long-acting** benzodiazepines are recommended over shorter-acting ones, except in cases of impaired hepatic metabolism (e.g. liver failure, elderly). The dose and duration should be individually determined, according to the severity of withdrawal and the presence of other medical disorders. In general, the duration of benzodiazepines treatment should be limited to the first 3 to 7 days after the cessation of alcohol. Strength of recommendation: STRONG
Withdrawal

- Only about 50% of dependent individuals will experience withdrawal effects
- Onset within 6 to 24 hours
- Peak around 48 hours
- Most severe symptoms (delirium tremens) occur after 3 – 7 days
- Severe withdrawal may last up to 10 days.
Consider

- Amount
- Pattern of drinking
- Home situation
- Other medical or physical problems
- Follow up
- Consider referral to CHDS for support
CHDS

- Walk in clinic 10-1 Mon-Fri
- Pitman House
- 50 Carrington Rd Pt Chevalier

- Home assessment
- Fax referral
Mild

- Diazepam  Taper from 25mg/day

Days 1 & 2: 5mg tid, 10mg nocte
Day 3: 5mg bid, 10mg nocte
Day 4: 5mg tid
5mg bid
nocte

Day 5: 5mg bid
Day 6: 5mg

Dispense daily with Sunday takeaway dispensed on Saturday. Close Control
**Diazepam  Taper from 40mg/day**

Days 1 & 2: 10mg qid
Days 3 & 4: 5mg tid, 10mg nocte
Day 5: 5mg bid, 10mg nocte
Day 6: 5mg tid
Day 7: 5mg bid
Day 8: 5mg nocte

Dispense daily with Sunday takeaway dispensed on Saturday. Close Control
Extra’s

- Thiamine 50mg qid 1 month
- Multivitamin
- Metoclopramide or ondansetron
Alcohol dependence

- Problem/abusive drinking
  - Dependence
    - Altered brain function
  - Excessive & uncontrollable drinking
  - Abstinence
    - Acute/protracted withdrawal symptoms
Relapse Rates by Time: Alcohol
(Adapted from Connors, Donovan and DiClemente, 2001)

% Abstainers

MONTHS
Rehab-Prevention of relapse

- Treatment outcomes tend to be similar regardless of setting.

- Approaches: behaviour therapy, motivational enhancement, Twelve Step Facilitation, family therapy, and pharmacotherapy.
NICE guidelines

- “after withdrawal offer naltrexone in combination with psychological intervention focussed on alcohol misuse”
- “consider disulfiram in those whose goal is abstinence and can’t have naltrexone …and understand risks”
Disulfiram

- Disulfiram available since 1947
- Inhibits aldehyde dehydrogenase
- Flushing headache palpitations ..
- Daily supervision
- good especially long term alcohol dependence
- Start 12 – 48 hours after last alcohol
- 100– 500mg daily, usually 200mg
- Warn re sauces, mouthwash, cough mixt, perfume, aftershave
- Sensitisation to alcohol may continue for 6 – 14 days after last dose of disulfiram
- Continue 6 – 12 months, or long term
- Monthly LFT for 6 months
Naltrexone opioid antagonist

- Mu opioid receptor antagonist
- Reduces rewarding effect of alcohol
- Reduces cravings
- Cochrane review – return to heavy drinking NNT 9-12
- Reduction in number of heavy drinking days, reduction in amount consumed and reduction in GGT
Acamprosate, an aminoacid derivative, affects neurotransmission of both GABA and excitatory aminoacid (glutamate).

- Topiramate promising
- Gabapentin 2 small studies
Primary Care

- Chronic care model
- Collaboration with sec care
- USA trial RCT 163 those engaged in primary care based alcohol treatment more likely to receive naltrexone, be engaged in treatment (OR 5), and lower % heavy drinking days (OR 2) than those in a specialty programme
Opiates
In the 2007/08 New Zealand alcohol and drug use survey, it was reported that 3.6% of adults (aged 16 to 64 years) had used an opiate for recreational purposes at some stage of their life.

2014 GDS 8%

The most common type of opiate used was prescription analgesics such as morphine or oxycodone. In the latest report from the Illicit Drug Monitoring System (IDMS), it is confirmed that the main source of illicit opioids in New Zealand is “street morphine”, sourced from pharmaceutical prescriptions.

“Homebake heroin”, made from codeine, is also popular among drug users.
Tramadol

- New Zealand usage: 24 per cent of New Zealanders surveyed have used Tramadol at least once in their lifetime, and 11.5 per cent have used it in the past year.

- Of survey respondents who used Tramadol, 78.1 per cent used it to relieve pain, 18.4 per cent to get high and 27.9 per cent to relax. While 71.6 per cent of the respondents got it on prescription, most of the others got it from a friend.
Street value?

- Morphine?
- Oxycodone?
- Codeine?
- Tramadol?
Overdose rate in USA
Chronic NMP

- Royal Australasian College of Physicians
- Prescription Opioid Policy
- Improving management of chronic non-malignant pain and prevention of problems associated with prescription opioid use.
- 76 page guideline written in 2009
Higher risk

- Younger age
- Back pain
- Multiple vague pain complaints
- Substance abuse disorders
- Previous MH history anxiety, depression

- High daily doses opioids >120mg and short acting schedule II opioids
So long as client is compliant and is not abusing the medication or other drugs there is no legal need to refer the patient for OST.

Some client’s may benefit from OST.

Some patients may already be on OST.
s24 – treatment of people dependant on controlled drugs

(1) Every medical practitioner commits an offence who prescribes, administers, or supplies a controlled drug for or to a person who the practitioner has reason to believe is dependent on that or any other controlled drug

(a) in the course or for the purpose of the treatment of the person for dependency

(9) This section does not apply to—

(b) the emergency treatment of a patient in a hospital care institution for a period not exceeding 3 days:
Benzodiazepines

KEEP CALM AND EAT YOUR BENZODIAZEPINES
Benzodiazepines

- New Zealand usage: 16.7 per cent of New Zealanders surveyed have used benzodiazepines at least once in their lifetime, and 6.8 per cent have used them in the past year.

- Of survey respondents who used benzodiazepines, 58.2 per cent used them to sleep, 20.4 per cent to get high and 70.2 per cent used them to relax.

- While 74.9 per cent of users got benzodiazepines on prescription, respondents found it possible to get them from a friend or dealer or buy them online as well.

- Low numbers present for treatment 0.4% CADS
Risks

- Among older people, benzodiazepines may be associated with falls and increased risk of hip fractures
- Significant risk of dependency and withdrawal syndrome
- Cognitive impairment
Panic disorder NICE

- Offer an SSRI licensed for panic disorder, unless otherwise indicated.
- CBT
- Benzodiazepines, sedating antihistamines or antipsychotics should not be prescribed for the treatment of panic disorder.
Psychological treatments first line

If a person with GAD chooses drug treatment, offer a selective serotonin reuptake inhibitor (SSRI). Consider offering sertraline first because it is the most cost-effective drug.

Do not offer a benzodiazepine for the treatment of GAD in primary or secondary care except as a short-term measure during crises.
Benzodiazepines

- Avoid prescribing any benzodiazepine if possible

- Short periods of time close control. Less than 4 weeks

- Never prescribe lorazepam
<table>
<thead>
<tr>
<th>Benzodiazepine</th>
<th>Dose Equivalent to Diazepam 10mg (Range in literature)</th>
<th>Time to peak effect orally (Range in literature)</th>
<th>Half Life (Range in literature)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alprazolam</td>
<td>1mg, (1-2mg)</td>
<td>1 hr, (1-2 hrs)</td>
<td>20 hrs, (9-48 hrs)</td>
</tr>
<tr>
<td>Bromazepam</td>
<td>6mg</td>
<td>0.5-4 hrs</td>
<td>8-30 hrs</td>
</tr>
<tr>
<td>Chlordiazepoxide</td>
<td>30mg, (20-50mg)</td>
<td>1-4 hrs</td>
<td>4-29 hrs (parent drug), 28-100 hrs (active metabolites)</td>
</tr>
<tr>
<td>Clozapam</td>
<td>20mg</td>
<td>2hrs</td>
<td>10-50 hrs</td>
</tr>
<tr>
<td>Clonazepam***</td>
<td>1mg, (0.5-8mg)</td>
<td>1-4 hrs</td>
<td>19-60 hrs</td>
</tr>
<tr>
<td>Clorazepate</td>
<td>20mg, (15-20mg)</td>
<td>0.5-2 hrs</td>
<td>13-120 hrs</td>
</tr>
<tr>
<td>Diazepam</td>
<td>10mg</td>
<td>0.5-2 hrs</td>
<td>14-70 hrs (parent drug), 30-200 hrs (active metabolites)</td>
</tr>
<tr>
<td>Flunitrazepam</td>
<td>1mg, (1-4mg)</td>
<td>1-2hrs</td>
<td>20-30 hrs</td>
</tr>
<tr>
<td>Flurazepam</td>
<td>30mg, (15-30mg)</td>
<td>0.5-1 hr</td>
<td>0.3-3 hrs (parent drug), 40-250 hrs (active metabolites)</td>
</tr>
<tr>
<td>Lorazepam</td>
<td>2mg, (1-2mg)</td>
<td>2 hrs, (1-6 hrs)</td>
<td>8-24 hrs</td>
</tr>
<tr>
<td>Lormetazepam</td>
<td>1-2mg</td>
<td>-</td>
<td>11 hrs</td>
</tr>
<tr>
<td>Loperazolam</td>
<td>1mg, (1-2mg)</td>
<td>1-2 hrs</td>
<td>4-15 hrs</td>
</tr>
<tr>
<td>Nitrazepam</td>
<td>10mg, (5-40mg)</td>
<td>2 hrs, (0.5-7 hrs)</td>
<td>15-48 hrs</td>
</tr>
<tr>
<td>Oxazepam</td>
<td>30mg, (30-80mg)</td>
<td>1-4 hrs</td>
<td>3-25 hrs</td>
</tr>
<tr>
<td>Temazepam</td>
<td>20mg, (20-40mg)</td>
<td>2hrs, (0.5-2.5hrs)</td>
<td>3-25 hrs</td>
</tr>
<tr>
<td>Triazolam</td>
<td>0.5mg</td>
<td>1-2 hrs</td>
<td>1.5-5 hrs</td>
</tr>
</tbody>
</table>
Withdrawal

- keystones are gradual dosage tapering and psychological support
- Discontinuation is usually beneficial as it is followed by improved psychomotor and cognitive functioning, particularly in the elderly.
- Simple interventions include basic monitoring of repeat prescriptions and assessment by the doctor. elderly.
a letter from the primary-care practitioner pointing out the continuing usage of benzodiazepines and questioning their need can result in reduction or cessation of use.

recommendation is to aim for withdrawal in <6 months

Substitution of diazepam for another benzodiazepine can be helpful (and is usual practice)

Tranx

Consider restriction notice
Other interventions

- CBT needs to be administered by fully trained and experienced personnel but seems effective, particularly in obviating relapse.

- Psychological treatment plus GDR are superior to routine care (OR = 3.38, CI = 1.86-6.12) and GDR alone (OR = 1.82, CI = 1.25-2.67).
Cannabis
Cannabis

- Cannabis use is common, especially among young people.
- The greatest risk of harm from cannabis use is in young people and those who are pregnant or have serious mental illness.
- A tenth of cannabis users develop dependence, with three quarters of them experiencing withdrawal symptoms on cessation.
- Brief interventions and advice on harm reduction can improve outcomes.
- Psychoeducation (for a better understanding of dependence), sleep hygiene, and brief symptomatic relief form the mainstay of withdrawal management.
- Dependent users may present with symptoms suggestive of depression, but diagnosis and treatment should be deferred until two to four weeks after withdrawal to improve diagnostic accuracy.

Synthetic cannabinoids
Synthetic cannabinoids manufactured chemicals that mimic the actions of cannabinoids

common JWH-018 developed by JW Huffman chemist

Also JWH 073 and RCS 04-often mixed

Greater affinity at CB1 receptor

Tolerance develops quickly

Psychoactively inert herbs and aromatic extracts sprayed with SC compounds
Epidemiology

- Australia Drug And Alcohol review Mar 2013
- 96% previous used cannabis
- Median age 27yo (25% over 35yo)
- 77% male
- Curiosity, pleasurable effects, legality, availability, non detection drug tests , (price)
- NZ audit 3/12 17 patients 26yo, 60% male
- 13% asst with K2 use
- 25% first presentation MHU
- 4 new psychosis
Withdrawing

- Similar to cannabis withdrawal but more severe – loss of appetite, nausea, vomiting, anxiety, agitation, ...
- Quetiapine 12.5-25mg
- Diazepam 5mg no longer than 5 days
- Can last 2-3 weeks
Methamphetamine
- World war II Meth was given to the soldiers.
- Winston Churchill used Amphetamine
- Meth was known as Pervitin and was given to German soldiers
- Hitler was injecting himself 8 times daily
- Japanese pilot used Meth in Kamikaze suicide missions.
- 1950 Meth was legally produced and sold over the counter as Methedrin for depression and weight loss
Methamphetamine use first emerged in the general population in New Zealand in the early 2000s.

The current median price of a ‘point’ (0.1 grams) of methamphetamine was $100 in 2012, and the current median price for a gram of methamphetamine was $700 in 2012.

In 2012, the frequent drug users reported that 10 capsules of Contact NT™ had a median price of $20 and the median price of a pack of 24 flu tablets containing pseudoephedrine was $30.
In 2002, ephedrine products were classified as Class C controlled drugs under the Misuse of Drugs Act 1975. In August 2011, ephedrine and pseudoephedrine were re-classified as Class B2 controlled drugs, making them available only by prescription from a medical practitioner.
Methamphetamine is a synthetic substance that is typically manufactured from over-the-counter pharmaceuticals (predominantly cough and cold medications) containing ephedrine or pseudoephedrine.

methamphetamine has a similar pharmacological action as dexamphetamine and methylphenidate (Ritalin)
Fat soluble, so easily and rapidly absorbed.

Gets into the brain faster than amphetamine

Duration of high 6 to 14 hour

Tolerance can occur from the first dose make it extremely addictive

Onset:

- oral - about 30-60 minutes
- Snorted - 2-5 minutes
- injected or smoked – almost instantaneous
Mode of use

- Methamphetamine can be taken by intranasal and intravenous means, orally ingested, as well as smoked in crystal form. While the mode of administration may impact on the speed of onset and the level of euphoria experienced by the user, the basic pharmacology remains the same.
Stimulant

- As a central nervous system stimulant, methamphetamine stimulates the release of catecholamines and dopamine from the presynaptic nerve endings, as well as inhibiting re-uptake or degradation
Effects of Drugs on Dopamine Release

**METHAMPHETAMINE**

- **Accumbens**
  - % Basal Release
  - Time After Methamphetamine

**COCAIN**

- **Accumbens**
  - % of Basal Release
  - Time After Cocaine

**NICOTINE**

- **Accumbens**
  - % Basal Release
  - Time After Nicotine

- **Caudate**
  - % of Basal Release

**ETHANOL**

- **Accumbens**
  - % Basal Release
  - Time After Ethanol

- **Dose (g/kg ip)**
  - 0.25
  - 0.5
  - 1
  - 2.5
Long term use

- The long-term effects of methamphetamine use are pronounced. Heavy users may display a number of psychotic features, including paranoia, auditory hallucinations, mood disturbance and delusions.
# Withdrawal Stages

**Time**  
(since last amphetamine use)

- **Day 1-3**  
  *The ‘crash’*

- **Days 2-10**

**Common Symptoms**

- exhaustion
- increased sleep
- depression
- strong urges to use
- mood swings
- poor sleep
- poor concentration
- general aches & pains, headaches
- increased appetite
- strange thoughts - paranoia
- misunderstanding
## Withdrawal Stages

<table>
<thead>
<tr>
<th>Time</th>
<th>Common Symptoms</th>
</tr>
</thead>
<tbody>
<tr>
<td>Day 7 - 28</td>
<td>Although settling down includes</td>
</tr>
<tr>
<td></td>
<td>• mood swings</td>
</tr>
<tr>
<td></td>
<td>• poor sleep</td>
</tr>
<tr>
<td></td>
<td>• cravings</td>
</tr>
<tr>
<td>One to three months</td>
<td>• return of normal sleep and levels of activity and mood</td>
</tr>
<tr>
<td></td>
<td>• major improvements in general health and mood</td>
</tr>
</tbody>
</table>

*Turning Point, “Getting through Amphetamine Withdrawal”, Revised Feb 99, Victoria, Australia*
Withdrawal Support

- Symptomatic
- Usually in community
- The Bridge Ewington bed
- Federal St social detox
- IPU
Medication

- Short term benzodiazepines (diazepam 5-10mg tds prn max 4 days) close control

- Olanzapine 2.5-5mg (maybe higher) withdrawal associated agitation and anxiety and acute psychosis (contact crisis) or

- Quetiapine 25-50mg

- SSRi-low dose and titrate. Beware serotonin syndrome
Matua Raki

- Substance Withdrawal Management: Guidelines for Addiction and Allied Practitioners
- Substance Withdrawal Management Guidelines
- Matua Raki website
CADS

- CADS Counselling Service (Adult Out-patient)
- CADS Offender Team
- CADS Medical Inpatient Detoxification Service
- CADS Community & Home Detoxification Service
- CADS Auckland Methadone Service
- CADS Dual Diagnosis Service
- CADS Youth Service “Altered High”
- CADS Pregnancy and Parental Service
- Te Atea Marino, Maori Alcohol & Drugs Service
- Tupu, Pacific Island Alcohol & Drugs Service
Regional Service

- West Henderson
- South Manukau
- Central Kingsland
- North Takapuna
- Pitman House – IPU, CHDS, AOTS
- Walk in clinic – duty counsellor or CHDS
- Groups
- One on one
- AOTS
Referral info

- Website

- Referral Coordinator 815 5830 ext 5039 or fax 815 5848

- Medical Advice 021 784 288

- Walk in clinic 10-1 Mon-Fri
CADS Altered High Youth Service now has three ‘Alcohol & Other Drug - Primary Care Focus’ clinicians. We are available to work with Primary Care to support the care of young people (13 - 20yrs) using alcohol and drugs (AOD).

We are experienced in working with youth presenting with AOD & Co-existing mental health problems (CEP) and are part of a regional, mobile, multidisciplinary team.

- Advice and consult for specific cases and on youth AOD issues in general
- Training in youth AOD & CEP issues, the use of AOD screening & brief intervention tools.
- Facilitating referrals and interface between services

The contact for Counties Manukau DHB area is Jennifer O’Loughlin, 845 1884, 021 274 3919
Jennifer.oloughlin@waitematadhb.govt.nz

Duty clinician: 845 1893 (office hours)
EDUCATED DRUG DEALER
References

- *Australian Family Physician*, August 2010
- WHO AUDIT manual
- RACP Prescription Opioid Policy 2009
- Global Drug Survey 2014

- *Withdrawing benzodiazepines in primary care*.
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- Graham Gulbransen (slides)
- Dr Helen Liley (slides)