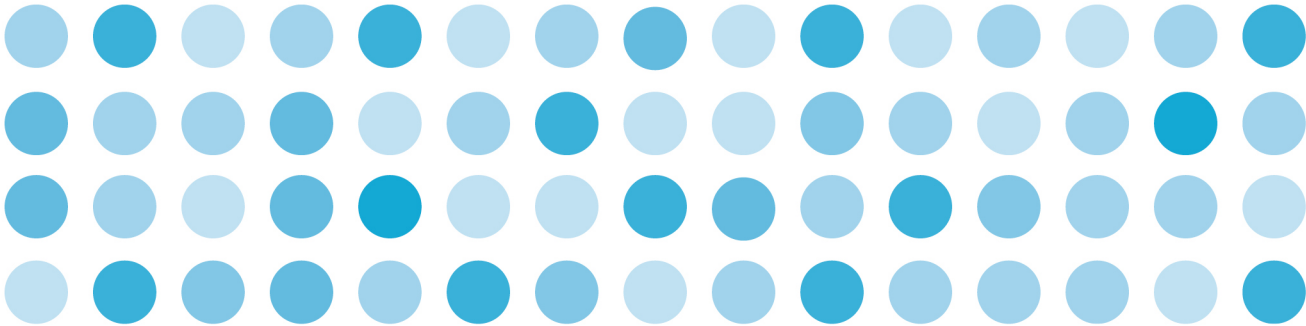


25-26 October 2010
Melbourne Cricket Ground



Anex 2010
**AUSTRALIAN
DRUGS
CONFERENCE**
Public Health and Harm Reduction

Dr Enrico Cementon



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Risk factors for prescription drug dependence and the management of patients addicted to benzodiazepines

Dr Enrico Cementon

SUMITT & DAS West

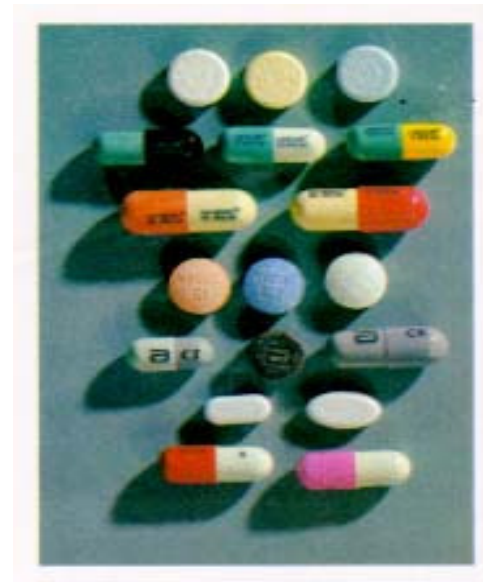
ANEX Conference 25 October 2010

Medications with psychoactive effects

- Depression
- Anxiety
- Psychosis
- Insomnia & Narcolepsy
- Attention-deficit, hyperactivity disorder
- Pain
- Other conditions
 - Allergy, movement disorder

Nonmedical Use of Prescription Medication

- Misuse
- Abuse
- Addiction
- Diversion
- Doctor shopping



Many forms of medication misuse

- Overuse
 - Higher doses
 - Longer than intended
 - Dose escalation
 - Inadequate treatment of anxiety or agitation
 - Tolerance
 - Inadequate information
- Intentional misuse
 - Taking someone else's Rx
 - For intoxication or euphoria
- May exist on a continuum

And then, there's addiction & dependence

- Persistent or compulsive use
- Continued despite adverse consequences
- Classic DSM-IV features
- Other addictive behaviours:
 - Altered routes of administration

2007 National Drug Strategy Household Survey

- Most common recently used drugs (%)
 - Alcohol 20.4
 - Tobacco 12.4
 - Cannabis 9.1
 - Ecstasy 3.5
 - Painkillers/analgesics 2.5
 - Stimulants 2.3
 - Cocaine 1.6
 - Tranquillizers/sleeping pills 1.4



What about antidepressants, antipsychotics, etc?

2007 National Drug Strategy Household Survey

Table 8.1: Use of pharmaceuticals for non-medical purposes, persons aged 14 years or older, by age, by sex, 2007

Period	Age group				Sex		Persons
	14–19	20–29	30–39	40+	Males	Females	
	(per cent)						
In lifetime	4.2	10.3	8.6	6.0	7.6	6.4	7.0
In the last 12 months	2.8	5.4	3.5	3.2	3.6	3.6	3.6
In the last month	1.6	2.4	1.7	1.8	1.8	1.9	1.9
In the last week	0.7	1.1	1.1	1.1	1.0	1.2	1.1
	(number)						
In lifetime	72,300	301,400	260,400	572,500	647,100	559,100	1,205,800
In the last 12 months	48,700	159,000	106,100	301,200	303,900	310,600	614,600
In the last month	27,600	69,400	52,500	170,200	156,500	163,200	319,700
In the last week	11,800	33,500	33,100	106,500	84,400	100,600	185,000

2007 National Drug Strategy Household Survey

Table 8.2: Recent use of selected pharmaceuticals, by age and sex, 2007 (per cent)

Pharmaceutical	Age group				Aged 14+
	14–19	20–29	30–39	40+	
Males					
Pain-killers/analgesics	1.6	3.4	2.3	2.3	2.4
Tranquillisers/sleeping pills	0.9	3.4	1.7	1.0	1.6
Steroids	* 0.4	0.6	* 0.3	* <0.1	0.2
Barbiturates	* 0.5	* 0.4	* 0.2	* <0.1	0.2
Females					
Pain-killers/analgesics	2.6	3.4	2.5	2.6	2.7
Tranquillisers/sleeping pills	1.2	2.4	1.4	0.7	1.2
Steroids	—	—	* <0.1	* <0.1	* <0.1
Barbiturates	* 0.3	* 0.2	* 0.1	—	0.1
Persons					
Pain-killers/analgesics	2.0	3.4	2.4	2.4	2.5
Tranquillisers/sleeping pills	1.1	2.9	1.6	0.9	1.4
Steroids	* 0.2	0.3	* 0.1	* <0.1	0.1
Barbiturates	* 0.4	0.3	0.2	* <0.1	0.1

* Relative standard error greater than 50%.

Groups of benzodiazepine misusers

- “Hidden” population
 - *Iatrogenic dependence*
 - Elderly
 - Chronic medical conditions e.g. pain
- Alcohol dependence
 - Up to 51% use BDZ
- People with unmet mental health needs → self-medicate
- IDUs
 - Risks of OD, infection, polydrug use

Benzodiazepine misusers sometimes not identified

- Perception that prescribed drug use sanctioned by prescriber
- May not encounter legal problems
- Misperception that prescribed drugs are “safer”
- May not identify with or attend traditional AOD service

Drug harms

- Physical
- Risk of Dependence
- Social

Nutt, King, Saulsbury & Blakemore (2007)

Physical harms and benzodiazepines

- Acute toxicity
 - Respiratory depression, motor coordination
 - Excess sedation, confusion, delirium
 - Reduced CS, coma, death
 - Paradoxical arousal, agitation
 - Relationship with antisocial behaviour
 - Interactions with other drugs
 - Esp. opioids

Physical harms and benzodiazepines

- Route of administration
 - Esp. if IV → infection, abscess, thrombosis, phlebitis, distal gangrene from emboli
- Long-term issues
 - Withdrawal seizures
 - Depression
 - Esp. elderly - cognitive, falls, coordination, loss reflexes



Temazepam & Unisom Injecting and digital infarction...



Temazepam IV & Digital Infarction



***Drug dependence* and benzodiazepines**

- Pleasure effects
 - Initial *rush*
 - Euphoria
- Production of addictive behaviours
 - Repeated use → tolerance & withdrawal, >2/52
 - T_{1/2}
 - Pharmacodynamic efficacy
 - Psychological dependence important
 - Physical withdrawal Sx through *fear or threat of stopping*

Social harms and benzodiazepines

- Intoxication
 - Accidents, violence and other crime
 - Health care costs
 - Doctor-shopping
 - Drug diversion
 - Other social costs
 - Impacts on family, relationships, workplace, community of user
-

Clinicians' responsibilities

- Prescribers of psychoactive medications
 - Treatment of disease
 - Minimising abuse, misuse, diversion, other harms
 - Preventing dependence & addiction
- Identification of dependence
- Management and treatment of dependence

Prevention strategies

- Education
 - Prescribers & clinicians
 - Pharmacies
 - Patients & community
- Controls on drug prescribing
 - Permit system
 - Market withdrawal e.g. temazepam gel caps
 - Mandatory reporting drug dependent persons to DPU

Prescribing guidelines

- www.racgp.org.au/guidelines
- Recommended for short-term use, up to 4-6 weeks
- Assess for presence of pre-existing AOD misuse or abuse
- Inform patients of risks
- Treat underlying disorder
- Consider non-pharmacological options

Identification of dependence

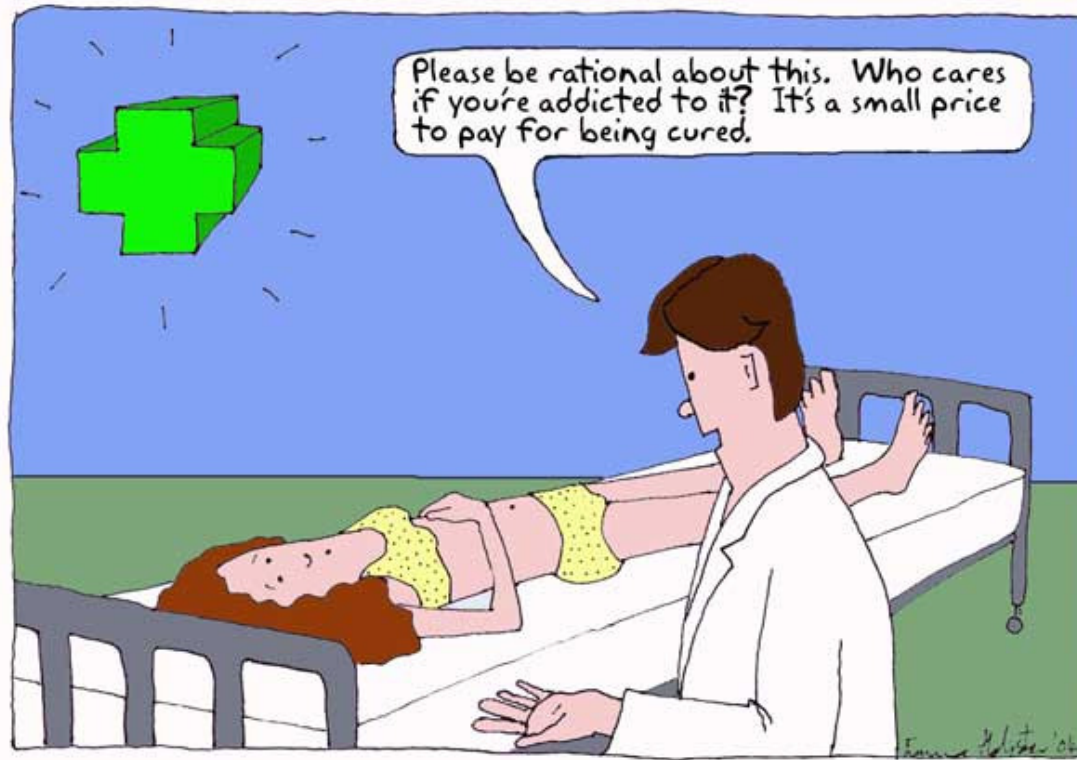
Pattern of addiction

- Adverse consequences from use
- Intoxicated/sedated
- ↓ activity
- Irritable/anxious/labile mood
- ↑ sleep disturbance
- ↑ pain complaints
- ↑ relationship problems
- ↓ control over use/ ↑ compulsive use
- “Lost/stolen” prescriptions
- Frequent early renewal requests
- Abusing AOD
- Withdrawal signs & symptoms
- Preoccupation with use/craving
- Collateral reports of overuse
- Frequent DNA’s
- Reluctant to try other options
- No relief except with BDZ
- Urgent calls-unscheduled visits

Pattern of therapeutic use

- Good therapeutic response
- No changes in CS state
- Stable or ↑ activity
- Stable or ↑ mood
- Stable or ↑ sleep
- Stable or ↑ pain
- Stable or ↑ relationships
- Able to use as prescribed
- Rare or no medication incidents
- No AOD abuse
- No withdrawal signs
- Seeking symptom relief, not BDZ
- Collateral reports favourable
- Makes appointments
- Tries other options
- Adopts self-management techniques

Benzodiazepine dependence management principles



Assessment of benzodiazepine use

- Reasons for:
 - Referral or presentation
 - Original indication for BDZ
 - For long-term user - clinical efficacy?
- Is use:
 - Improving quality of life?
 - Causing harms?
 - Exacerbating original condition?
- What other mental health issues?
- Patient's expectations
- Collateral information
 - Other people, carers, family

Benzodiazepine withdrawal symptoms

- Acute & dangerous: within 2 weeks of cessation or reduction
 - Convulsions
 - Psychosis
 - Delirium
 - Hallucinations
 - Panic attacks
- Protracted & distressing
 - Physical: aches, palpitations, numbness, headaches, paraesthesiae, “shocks”, GI
 - Psychological: sleep disturbance, hypersensitivity, perceptual changes, anxiety, agitation, cognitive problems, depression, cravings

Withdrawal risk factors

- Previous withdrawal complications
- Duration of continuous use
- Higher doses
- Shorter-acting drugs
- Increasing age
- Rapid dose reduction

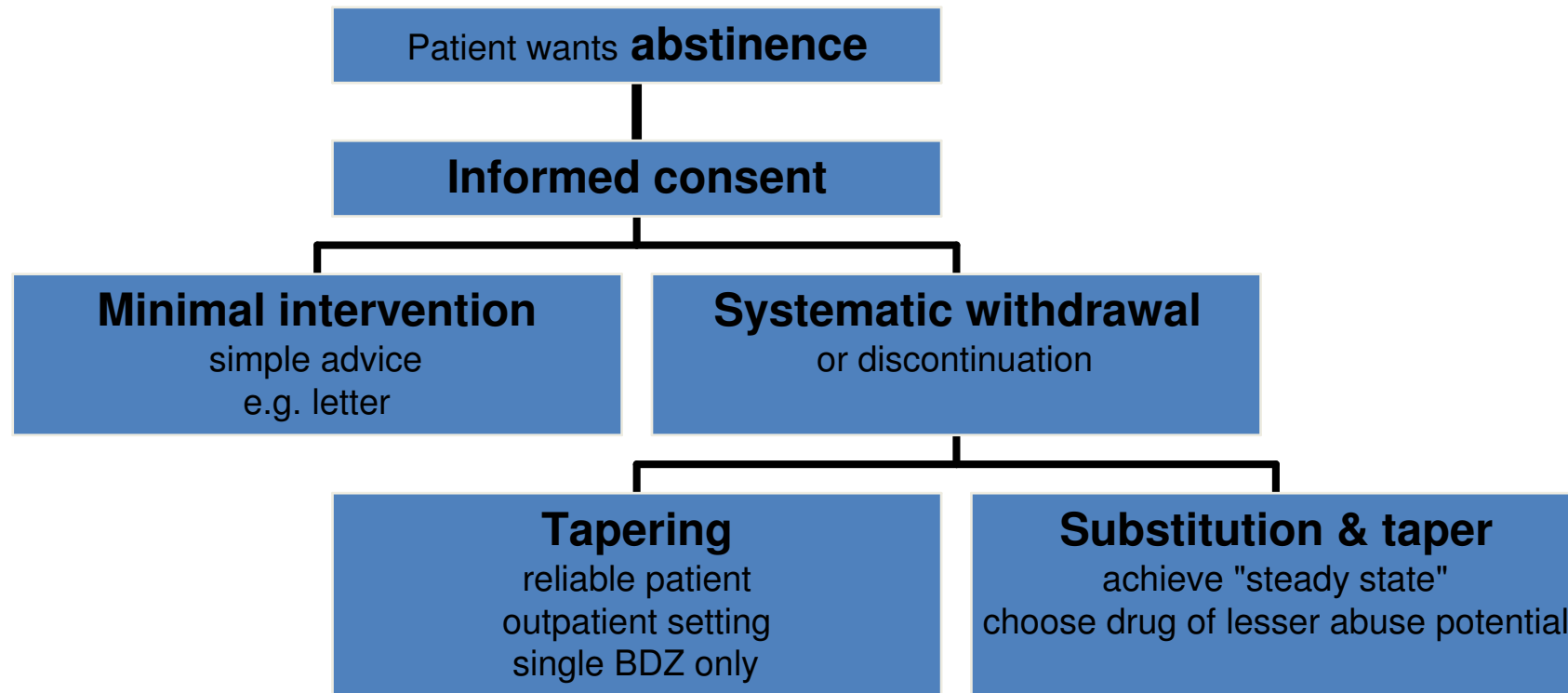
Categories of risky benzodiazepine users

- Older person on low dose
 - E.g. Diazepam 5-10 mg nocte
- Moderate level doctor shopper
 - E.g. 30-80 mg diazepam daily
 - Often female, 30-50 y.o.
- High level user
 - E.g. diazepam >80 mg daily
 - Usu. polydrug use
 - IVDU 15-30 y.o.
 - Alcohol 30-50 y.o.
- High level, short duration *binge use* usually not at high risk in withdrawal

Equivalent doses of 5 mg diazepam (mg)

- Alprazolam 0.25-0.5 (in reality 0.5mg = diazepam 10mg)
- Oxazepam 15-30
- Nitrazepam 5-10
- Clonazepam 0.5
- Temazepam 10-20
- Flunitrazepam 1-2

Benzodiazepine detoxification



Dickinson & Eickelberg (2009)

Benzodiazepine withdrawal

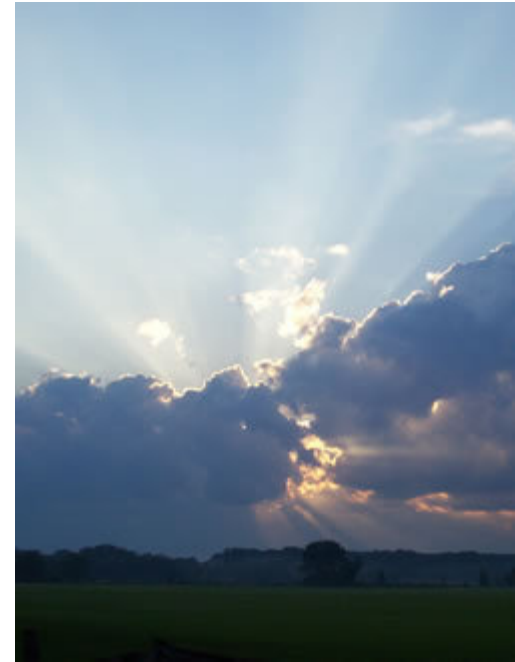
- Tapering
 - ? Initial inpatient reduction
 - Fixed-dose taper schedule
 - ↓ every 1-2/52
 - First 50% easier
 - Slow last 25% taper rate
 - For long-term user
 - Not >5mg diazepam or 10% of starting dose
 - Close monitoring
 - Adjust dose-taper PRN
- Substitution & Taper
 - ? Initial inpatient reduction
 - Change to long-acting drug
 - E.g. diazepam, clonazepam, phenobarb
 - Divided doses
 - Cross-taper in the first week only
 - ↓ every 1-2/52
 - Slow last 25% taper rate
 - Close monitoring & support
 - Adjust dose-taper PRN

Benzodiazepine withdrawal adjunctive treatments

- Carbamazepine
 - Some evidence for ↓ withdrawal symptoms
- Valproate
 - ? Good for anxiety
- Propranolol
 - ↓ withdrawal symptoms
- CBT, specialist support
 - Esp. if initial anxiety disorder
- Utilise local AOD Home-based Withdrawal Service

Benzodiazepine withdrawal new treatments

- Antidepressants
- Flumazenil
- All require further research



Denis, Fatseas, Lavie & Auriacombe (2006)

Remember principles of **integrated** treatment of dual diagnosis

- Mental health treatments and substance abuse treatments are *brought together* :
 - same clinicians/support workers, or team of clinicians/support workers
 - same program
 - to ensure a consistent explanation of illness/problems and a coherent prescription for treatment rather than a contradictory set of messages from different providers
- Developing evidence base
- Regarded as *current best practice*

Remember principles of **integrated** treatment of dual diagnosis

- Combine interventions for both
 - Benzodiazepine dependence
 - Other mental health problem
- Consider both
 - Pharmacological e.g. antidepressant Rx
 - Psychological e.g. CBT, relaxation, MI, family interventions, etc.

Sleep hygiene

- Don't overheat bedroom
- Bedroom for sleep (& sex) only
- Exercise
 - Not just before bed!
- Avoid stimulants in evening- caffeine, nicotine
- Avoid big evening meal
- Slow down & relax 2/24 before bed
- Bed when actually sleepy
- If no sleep within 30 mins, get up
- Arise same time in morning
- Avoid daytime naps

What about the benzodiazepine user who can't - won't stop?

- Treatment agreement or *contract*
 - Frequency of prescriptions & dispensing
 - Timely prescriptions, but no early replacements
 - Single prescriber
 - Safe storage
 - No diversion or sharing
 - Monitoring via UDS
 - Adherence to monitoring visits

