DETOXIFICATION

LEEDS ADDICTION UNIT

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Detoxification

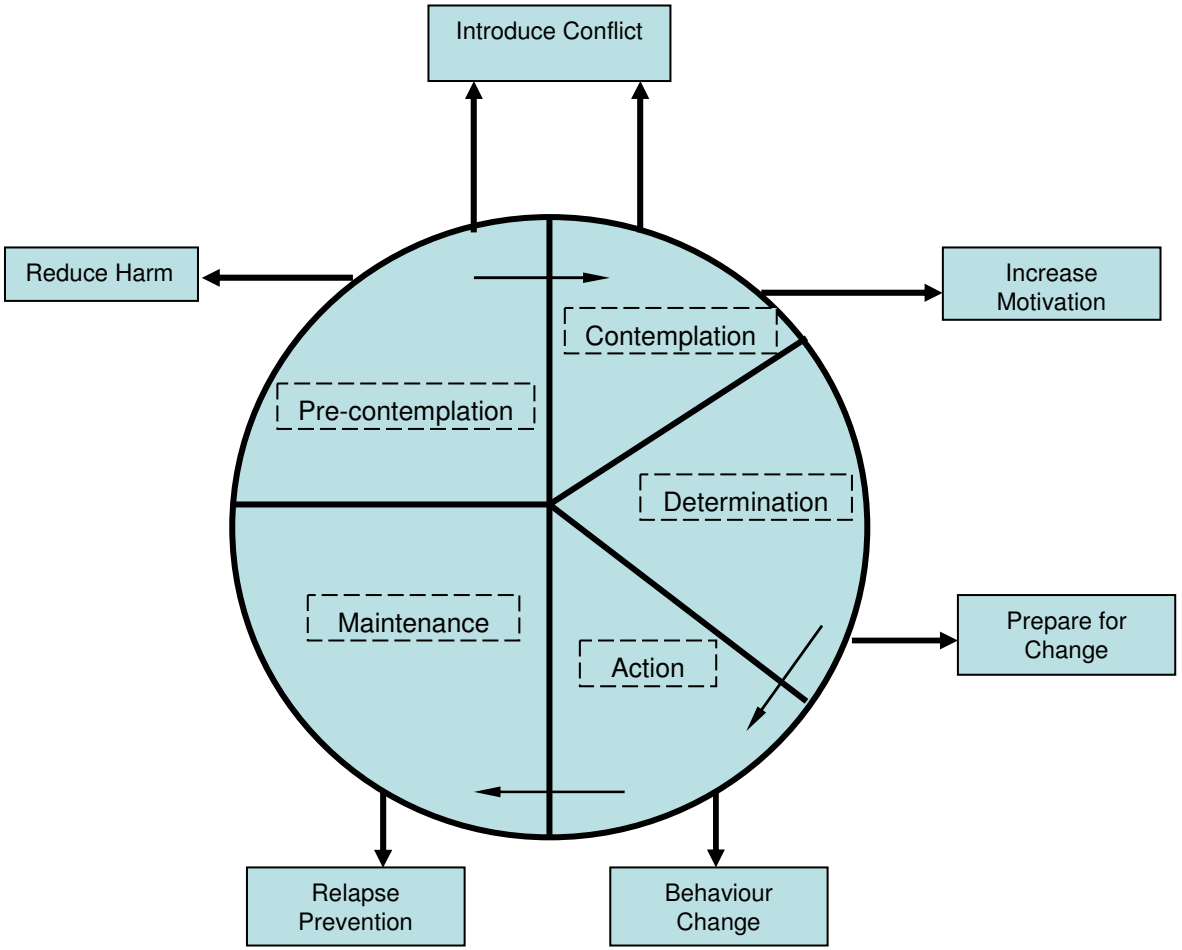
What factors should we consider when thinking of detoxification?

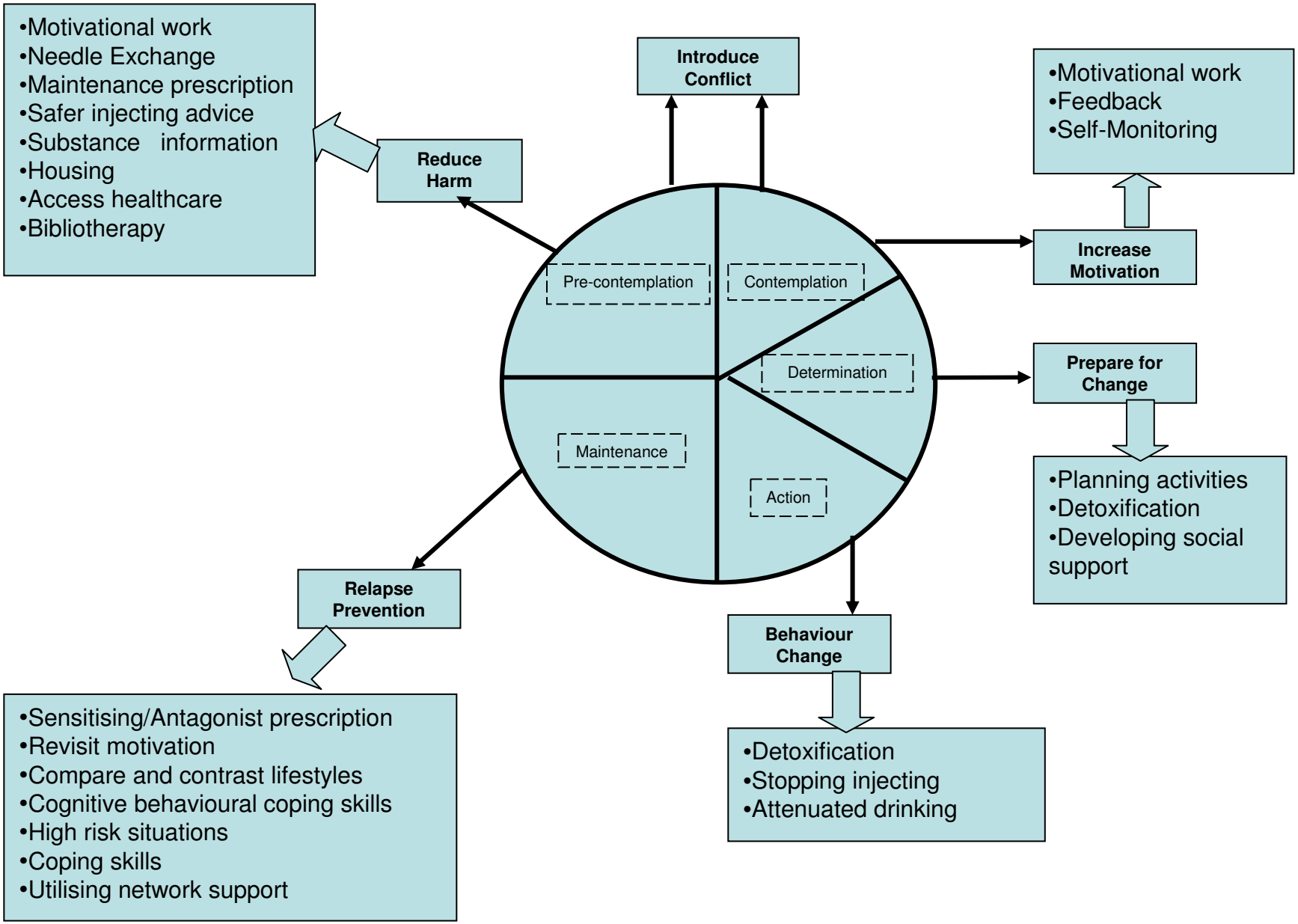
- Dependence
- Model of Change
- Motivation

The Seven Markers of Dependence

- Increased tolerance
- Repeated withdrawal symptoms
- Craving
- Salience of drug-seeking behaviour (Simply obtaining the drug becomes
- increasingly important at the expense of other aspects of the drug users life)
- Relief or avoidance of withdrawal symptoms
- Narrowing of the repertoire of drug taking behaviour (Drug use becomes a daily activity, an increasingly strict daily routine of drug taking develops)
- Reinstatement of drug taking after a period of abstinence

Matching Interventions to Stages of Change




•Motivational work
•Needle Exchange
•Maintenance prescription
•Safer injecting advice
•Substance information
•Housing
•Access healthcare
•Bibliotherapy
Reduce Harm
Introduce Conflict
•Motivational work
•Feedback
•Self-Monitoring
Increase Motivation
Pre-contemplation
Contemplation
Determination
Maintenance
Action
Prepare for Change
•Planning activities
•Detoxification
•Developing social support
Relapse Prevention
•Sensitising/Antagonist prescription
•Revisit motivation
•Compare and contrast lifestyles
•Cognitive behavioural coping skills
•High risk situations
•Coping skills
•Utilising network support
Behaviour Change
•Detoxification
•Stopping injecting
•Attenuated drinking

Features of determination & action stages of change

Determination

- High self efficacy
- Positive outcome expectancy
- Ready to change
- Planning
- Commitment

Action

- Behavioural change
- Implementation
- Highly motivated
- Affirmation seekers

Motivation

How do we recognise the motivated patient?

- Problem recognition
- Expression of concern
- Intention to change
- Expression Optimism

Detox preparation

In small groups identify the main areas to be addressed in detox preparation

- How will life be better?
- Coping with withdrawals
- Activities
- Support
- Differences compared to previous attempts
- Identifying risks & coping strategies
- Planning for the future

Effects of Opiates

Physical

- Constipation
- Pin-point pupils
- Drowsiness
- Respiratory depression

Psychological

- Sense of euphoria
- Deep relaxation
- Suppression of pain

Withdrawal from Opiates

- Aching limbs
- Stomach cramps
- Diarrhoea
- Dilated pupils
- Anxiety
- Sweating
- Goose flesh
- Vomiting
- Insomnia

Dihydrocodeine

- Dihydrocodeine has the benefit of familiarity for many opiate users so that they are likely to self titrate reasonably well.

- The disadvantage is that detoxification often becomes stalled and frequently fails.

Methadone

- What are the drawbacks of methadone for detoxification?

- Methadone detoxification, as opposed to slow reduction, is not recommended but is sometimes the service users regimen of choice. The problem is a more prolonged withdrawal and a longer wait to initiate naltrexone. Detoxification from methadone poses particular problems because of its long half life and the preferred methadone regimen is to crossover, either to buprenorphine or dihydrocodeine and then follow the standard withdrawal procedure.
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Buprenorphine
(Subutex)

Buprenorphine crossover and withdrawal regimen

- Buprenorphine has a high affinity for opiate receptors and is able to displace methadone and heroin while at the same time blocking withdrawal effects. Buprenorphine also resides in the receptor long after elimination from blood, thus there is a mild protracted residual withdrawal; this is similar to but of less severity than with methadone.

- There should be evidence of withdrawal before commencing a buprenorphine detoxification otherwise withdrawal will be precipitated. The last dose of methadone should be at least 24 hours prior to commencement of a crossover regimen.

Buprenorphine Regime

	Total daily dose of buprenorphine		**Total daily dose of buprenorphine**	
	Crossover phase – methadone 30 mg		**Crossover phase – methadone 20 mg**	
Day 1	4 mg + 2 mg *		4 mg + 2 mg *	
Day 2	8 mg		6 mg	
Day 3	8 mg		6 mg	
Day 4	8 mg		6 mg	

*On day one of either crossover or detoxification 2 mg is given as a take home dose to be used if withdrawal symptoms reoccur. Another 2 mg may be added to this if necessary.

Buprenorphine

	Withdrawal phase from methadone	Withdrawal phase from heroin £30	Withdrawal phase from methadone	Withdrawal phase from heroin £20
Day 5	6 mg	4 mg + 2 mg	4 mg + 2 mg	4 mg + 2 mg
Day 6	4 mg	8 mg	4 mg	6 mg
Day 7	2 mg	6 mg	2 mg	6 mg
Day 8	2 mg	4 mg	2 mg	4 mg
Day 9	1.6 mg	2 mg	1.6 mg	2 mg
Day 10	1.2 mg	0.8 mg	1.2 mg	0.8 mg
Day11	0.8 mg	0.4 mg	0.8 mg	0.4 mg
Day 12	0.8 mg		0.8 mg	
Day 13	0.4 mg		0.4 mg	
Day 14	0.4 mg		0.4 mg	
Two days after the last dose of buprenorphine the service user can be started on naltrexone.				
*On day one of either crossover or detoxification 2 mg is given as a take home dose to be used if withdrawal symptoms reoccur. Another 2 mg may be added to this if necessary.				

Post Opiate Detox

- Naltrexone can be given once the opiate receptors are opiate free. The receptor will be blocked and prevent any subsequent use of opiates from producing an effect at that site.

- This should be prescribed in conjunction with appropriate psychosocial interventions such as coping skills / SBNT

Who is drinking the most?

50cl bottle 40% spirits day

2 x 75cl bottles of 15% wine

4 x 500ml cans of 9% lager

13 x 500ml cans of 3.2% Bitter

1x3 litre bottle of 7.5% cider

Who is drinking the most?

50cl bottle 40% spirits day ≈ 20.0 units
2 x 75cl bottles of 15% wine ≈ 21.4 units
4 x 500ml cans of 9% lager ≈ 18.0 units
13 x 500ml cans of 3.2% Bitter ≈ 19.5 units
1x3 litre bottle of 7.5% cider ≈ 21.5 units

Maximum recommended limits for a healthy….

- Man – 21units week
- Women – 14 units week
- How should these units be consumed over the week?

Alcohol Withdrawal

What are the symptoms of alcohol withdrawal?

- Tremor
- Nausea
- Sweating
- Anxiety / agitation

Complications of Alcohol Withdrawal

- Transient hallucinatory experience
- Delerium tremens
- Alcohol withdrawal seizures

Chlormethiazole

(Hemineverin)

Chlormethiazole Should not be used in the community. Offers marginally better protection against seizures and delirium than benzodiazepines and may be used for the treatment of severe withdrawal on an in-patient basis. This should only be undertaken by experienced physicians.

Oxazepam

Oxazepam is not metabolised by the liver and is the drug of choice where there is substantial impairment of liver function.

Chlordiazepoxide

(Librium)

Chlordiazepoxide is the drug of choice for most detoxifications. It is long acting, has low reinforcement potential.

A maximum daily dose of chlordiazepoxide should not normally exceed 120mg but may be increased to 160mg where there is a history of alcohol withdrawal seizures.

Chlordiazepoxide Regime

	Morning	Midday	Evening	Night	Total daily dose
Severe withdrawal					
Day 1	30 mg	30 mg	30 mg	30 mg	120 mg
Day 2	30 mg	20 mg	20 mg	30 mg	100mg
Moderate withdrawal					
Day 3	20 mg	20 mg	20 mg	20 mg	80 mg
Day 4	20 mg	10 mg	10 mg	20 mg	60 mg
Day 5	10 mg	10 mg	10 mg	10 mg	40 mg
Day 6	10 mg	10 mg	0	10 mg	30 mg
Day 7	10 mg	0	0	10 mg	20 mg

Supplementary Prescriptions

- **Vitamin supplements**
- Healthy, uncomplicated dependent drinkers should receive thiamine 100 mg tds and vitamin B co Strong two tabs tds until they are eating regularly.
- If Wernicke's Encephalopathy is suspected then Pabrinex should be used 500 mg once or twice daily for 3 – 5 days. One pair of Pabrinex ampoules provide thiamine 250 mg and other B and C vitamins.

- **Anti-hypertensives**
- If the systolic is ≥ 160mmHg or diastolic is ≥ 90mmHg consider short term treatment. Beta-blockers or thiazide diuretics are first line treatments.

Supplementary Prescriptions

Cont…

Anti-convulsants

- If a seizure occurs during withdrawal it is more likely to recur in subsequent episodes of withdrawal. Evidence shows that benzodizapines significantly reduce the incidence of seizures. Adding anti-convulsants to this regimen does not confer an advantage.

Delirium

- If monitoring withdrawal suggests delirium then hospital admission should be arranged.

Post Alcohol Detox

- Acamprosate
- Disulfiram

Harm Reduction

What is harm reduction?

- Measures that aim to reduce the negative consequences of drinking.
- Can be aimed at the population as a whole and defined by public policy, or at the individual drinker.

Who is harm reduction appropriate for?

Precontemplators where attempts at increasing motivation to make changes have been unsuccessful.

Areas to consider

- Social aspects
- Physical health

Physical health

- Attenuated drinking & Controlled drinking
- Diet
- Vitamin supplements

Wernickes Encephalopathy

- A reversible neuropsychiatric condition caused by Thiamine deficiency
- Occurs in 12.5% of problem drinkers

A triad of symptoms

1. Ataxia - poor coordination of arms and legs, slurred speech
2. Acute confusion
3. Abnormal eye movements

All three symptoms occur together in only 10% of cases

Korsakoff's Psychosis

- Permanent brain damage characterised by:
  - Confabulation
  - Memory Loss
  - Anterograde amnesia – loss of memory for events occurring after onset of disorder
  - Retrograde amnesia – loss of memory for events occurring before onset of disorder

Development of vitamin B deficiency

- Poor diet
- Reduced ability to absorb B Vitamins
- Depletion of stores of B vitamins

Recognition of Wernickes Encephalopathy

- Often develops over several days
- Commonly begins during detoxification from alcohol
- Anyone presenting with otherwise unexplained neurological symptoms during alcohol detoxification should be referred for assessment

Recognition of Wernicke's Encephalopathy

- Presume a diagnosis of Wernicke's in any patient undergoing detox who presents with one or more of the following symptoms:
- Acute confusion
- Decreased consciousness level including unconsciousness or coma
- Memory disturbance
- Ataxia / lack of coordination
- eye muscle paralysis causing squint or double vision
- Nystagmus (involuntary rhythmic oscillation of one or both eyes)
- Unexplained hypotension with hypothermia.

Particularly High Risk Patients

- Intercurrent illness
- Delirium tremens
- Alcohol related seizures
- IV glucose administration or requirement for IV glucose
- Significant weight loss
- Signs of malnutrition
- Recent diarrhoea
- Recent vomiting
- Drinking greater than 15 units/day in a person of normal build
- Peripheral neuropathy
- Previous history of severe withdrawal, seizures and/or delirium tremens

Treatment of Wernickes Encephalopathy

- IM Pabrinex
- One pair of IM high-potency Pabrinex ampoules should be administered once daily for 3-5 days
- High risk patients should receive for five days

Prophylactic Treatment of Wernicke's Encaphalopathy

- Thiamine 100mg TDS
- Vitamin B compound strong 2 tablets TDS
- Taken orally, only 4.5mg of Thiamine will be absorbed from a 100mg tablet. Increasing the dose will not increase absorption.

CASE STUDY 1

Balbir

50 year old man who lives alone with no support.
Drinks 1-1.5 litres vodka daily.
History of bi-polar disorder, prescribed lithium.
Describes seeing spiders crawling
around the floor and seizures in the
past when withdrawing.
Has attempted to self harm in the past when
intoxicated and withdrawing
Has attempted one previous detox when drank on top of
medication.

CASE STUDY 2

Jackie

40 year old female who lives with a non drinking partner who is supportive of abstinence goal.

Consuming 8 -10 cans 4% lager daily for past 2 months.

Mild tremor, nausea and sweating on waking.

Previous successful home detox two years ago, supervised by partner.

CASE STUDY 3

Angela

24 year old heroin user.

Injects £30 heroin daily.

Previously detoxified with buprenorphine and started naltrexone.

Relapsed after stopping naltrexone following a bereavement.

No other illicit drug or alcohol use.

Non using partner is supportive of abstinence.