

The logo for the Youth Substance Abuse Survey (YSAS) is located in the top right corner. It features the letters 'YSAS' in a bold, black, sans-serif font. The text is overlaid on a graphic consisting of two overlapping, irregular shapes: a light blue one on the left and a lime green one on the right.

YSAS

ADOLESCENT WITHDRAWAL GUIDELINES

2016

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PUTTING YOUNG PEOPLE FIRST

A strategic plan focusing on consolidation & excellence in service delivery.

OUR VISION

A community where all young people are valued, included and have every opportunity to thrive.

OUR VALUES

Honesty: We are authentic in how we relate to people within and outside of our organisation.

Empowerment: We create a safe and positive environment for young people and staff to make valuable contributions.

Accountability: We set high standards and we are answerable for our decisions and actions.

Respect: We accept and value the diversity and rights of people, their culture and their life experience.

OUR BELIEFS

Young people are not mini adults or children. They are developing and every experience matters

Health is a complete state of physical, mental and social well-being, and not merely the absence of disease or infirmity (World Health Organisation)

With opportunity, every young person can improve their health and make a valuable contribution to community life

Social justice and health are inextricably linked

To be inclusive of our young people we must embrace complexity and take risks that we can defend

Our success is measured by health improved or maintained and harm reduced

Our young people have many strengths but their lives are affected by serious disadvantage.

OUR PURPOSE

To enable young people experiencing serious disadvantage to access the resources and support they require to lead healthy and fulfilling lives.

OUR PRIORITIES

Young People will be central to setting the direction for YSAS

To build a skilled team, united by our purpose and vision

To respond to emerging need and alleviate disadvantage

To cultivate partnerships that improve outcomes for Young People

To demonstrate leadership in developing and sharing our expertise

To protect Young People's rights and accurately represent their needs

OUR FOUNDATIONS

Transparency, efficiency and accountability

Financial sustainability, strong governance and community support

OUR PLAN

2015 → 2018

YOUNG PEOPLE

TEAM

SERVICES

PARTNERS

EXPERTISE

ADVOCACY

INTRODUCTION

ADOLESCENCE, AS DESCRIBED BY INGERSOLL (1989), IS A, “PERIOD OF PERSONAL DEVELOPMENT DURING WHICH A YOUNG PERSON MUST ESTABLISH A PERSONAL SENSE OF INDIVIDUAL IDENTITY AND FEELINGS OF SELF WORTH WHICH INCLUDE AN ALTERATION OF HIS OR HER BODY IMAGE, ADAPTATION TO MORE MATURE INTELLECTUAL ABILITIES, ADJUSTMENTS TO SOCIETY’S DEMANDS FOR BEHAVIORAL MATURITY, INTERNALISING A PERSONAL VALUE SYSTEM AND PREPARING FOR ADULT ROLES.”¹

THESE ALCOHOL AND OTHER DRUG (AOD) WITHDRAWAL GUIDELINES HAVE BEEN DEVELOPED AS A RESOURCE TO SUPPORT CLINICIANS WHO ARE WORKING WITH ADOLESCENTS SEEKING TO ADDRESS THEIR SUBSTANCE USE.

Understanding the social and biological factors that precipitate substance use in a young person is important, but support for young people in AOD withdrawal is not just about addressing the substance use.

The young person should be viewed through a bio-psycho-social lens, assessing risk factors and protective factors in the young person's life as well as any barriers to accessing health care.

For this reason, YSAS recommends that clinicians encourage the young people they see to complete the YoDAA screening and assessment tool online prior to the consultation and to support the consultation: <http://www.workingitoutwithyodaa.org.au/>

In addition to the YoDAA tool, YSAS recommends that young people be advised and assisted to have [My Health Record](#), which is a secure online health

record supported by the Department of Health and Ageing. This provides young people with an effective and efficient means of accessing their health information. A significant proportion of the youth AOD sector do not have ready access to their immunisation status, previous health history or family health history. Supporting them in collating their health history is an important part of enhancing young people's health.

WHO ARE THE GUIDELINES FOR?

THESE GUIDELINES HAVE BEEN DEVELOPED PRIMARILY FOR USE BY YSAS STAFF, BUT ALSO TO ASSIST INDIVIDUALS WITH A BROAD RANGE OF BACKGROUNDS INCLUDING GENERAL PRACTITIONERS, YOUTH AOD SERVICES, COMMUNITY AGENCIES AND OTHERS TO SUPPORT ADOLESCENTS IN THE COMMUNITY SEEKING TO UNDERGO AOD WITHDRAWAL.

At all times, we have tried to use plain language or interpret medical terminology to enable these guidelines to be of as much assistance to as many

individuals as possible. We welcome feedback where the content is unclear or where it assumes too much, or too little, background knowledge.

Feedback may be sent to: reception@ysas.org.au

ADOLESCENT DEVELOPMENT

The process of adolescence is a period of preparation for adulthood during which several key developmental experiences occur. Besides physical and sexual maturation, these experiences include development of individual

identity, the capacity for abstract reasoning, movement toward social and economic independence, and the acquisition of skills needed to carry out adult relationships and roles. While adolescence is a time of tremendous

growth and potential, it can also be a time of considerable angst and risk during which social contexts and individual experiences can exert powerful influences.

DEVELOPMENTAL STAGES

Below are the key characteristics of young people in the three sub-stages of adolescence (early, middle and late) that are used as a framework in developmental psychology.²

Young people who are around 12 - 13 years old are usually in the early adolescent phase. However, the needs and functioning of some 14 -15 year olds (or even older) may fit within this stage,

highlighting the limitation of using age as a marker of developmental stage.

KEY CHARACTERISTICS OF YOUNG PEOPLE IN THE EARLY ADOLESCENT PHASE TO DELIVERY OF YOUTH AOD SERVICES INCLUDE:

- The commencement of individuation – a shift in orientation from parents to peer
- Relatively amenable to direction
- Need and respond well to structure
- Tendency for concrete or “black-and-white” thinking
- Strongly focused on the present
- Can be impulsive
- Experiential learners
- Primary to secondary school transition
- Legal status as minor

The middle adolescent stage generally pertains to young people within the 14 to 17 year old age range.

This stage is associated with heightened cognitive and emotional development.

1. Ingersoll GM. Adolescence. 2nd ed. Englewood Cliffs, NJ: Prentice-Hall; 1989

2. For more detail see: Steinberg L, Morris AS. Adolescent development. Annu Rev Psychol. 2001;52:83-110.

CHARACTERISTICS OF THE MIDDLE ADOLESCENT PHASE STAGE RELEVANT TO DELIVERY OF YOUTH AOD SERVICES ARE:

- Critical period for identity and value system development
- Desire to appear in control
- Strong need for privacy
- Continued need for structure and regulation of experience
- Need for status and acceptance
- Increased experimentation and risk taking
- Can overestimate coping abilities
- Increasing capacity for consequential thinking
- Still minors, school attendance compulsory until 15 years

Young people aged 18 to 21 years are generally considered to be in the late adolescent or young adult stage.

and further develop their capacity for problem solving, consequential thinking and self-management.

It is critical to remember that young people in this stage can frequently retain a propensity for impulsivity and exhibit characteristics commonly associated with earlier developmental stages.

In this stage, young people are typically beginning to consolidate their identities

This process is likely to continue well into their twenties or beyond.

CHARACTERISTICS OF THE LATE ADOLESCENT PHASE STAGE RELEVANT TO DELIVERY OF YOUTH AOD SERVICES ARE:

- Beginning to consolidate identity
- Further capacity for problem solving and consequential thinking
- More future oriented
- Increased mobility
- Continued risk taking
- Considering vocational choices
- Greater societal expectations to 'act' as an adult
- Increased ability to access more adult-style service provision
- Transition to adult legal system
- Transition to adult AOD system and other health systems

ADOLESCENT DOMAINS

CENTRAL CHANGES IN ADOLESCENCE OCCUR IN THE FOLLOWING DOMAINS:³

- Physical – onset of puberty (physical growth, development of secondary sexual characteristics and reproductive capability)
- Psychological – development of autonomy, independent identity and a value system
- Cognitive – moving from concrete to abstract thought
- Emotional – moodiness; shifting from self-centredness to empathy in relationships
- Social – peer group influences, formation of intimate relationships, decisions about future vocation

CAPACITY TO CONSENT

All young people aged between 12 and 17 years accessing YSAS services are assessed at the point of entry for capacity/competency to consent to treatment and support.

This means, they are believed to have the rights of adults regarding consent and confidentiality. It is good practice to document assessment of competency in the young person's medical record.

This is especially so when making about medications, procedures or other significant interventions.

THE KEY INDICATORS OF COMPETENCY (MODIFIED TO SUIT THE CONTEXT) INCLUDE:⁴

- The young person understands the nature of the service/intervention and what it will entail.
- The young person is likely to be at risk of harm if he/she does not receive support or intervention. The provision of a service without parental consent is in the young person's best interest.
- The young person refuses permission to inform his/her parents or allow the worker or other health professional to inform the parents that he/she is seeking YSAS services/intervention after being encouraged to do so.

3. NSW Kids and Families. (2014). Youth Health Resource Kit: An Essential Guide for Workers. NSW Kids and Families: Sydney.

4. The most commonly used test is based on Gillick Competency (Gillick v West Norfolk and Wisbech Area Health Authority, 1985) It found that a minor if deemed competent could consent to his or her own medical treatment and a parent cannot veto this decision. The ruling extends beyond medical consent recognizing that parental authority to make decisions for their children lessens with maturity. Gillick Competence is part of Australian law (Marion's Case, 1992 ruling against the parents' wishes to have their daughter with a disability sterilised). It is the basis for assessing competency for medical procedures in Victoria and can be applied in other professions.

FORMAL ASSESSMENT AND DOCUMENTATION OF COMPETENCE TO CONSENT IS REQUIRED WHERE:

1. A worker or other health professional queries the capacity of the young person to make decisions and give informed consent.
2. The young person is aged 11 years or under.

Note: On occasions, a guardianship or court order is in place regarding consent.

CONFIDENTIALITY

An exception to maintaining confidentiality can occur if the worker or health professional is of reasonable

belief that a person under 17 years of age is in need of protection, in which case the requirements of the Children,

Youth and Families Act 2006 overrides privacy legislation.

HOW TO DISCUSS CONFIDENTIALITY WITH YOUNG PEOPLE, AN EXAMPLE:

“I am going to ask you a series of questions related to your health and well-being. It’s important that you know that what we discuss is confidential. There are however a few situations in which I would have to break

confidentiality such as if you are going to hurt yourself or another person or if you are being harmed by someone else. I would of course talk to you first before I took anything further.”

ADOLESCENT BRAIN DEVELOPMENT AND SUBSTANCE ABUSE

Throughout adolescence, the brain undergoes substantial change, often called ‘re-modelling’. Broadly speaking, there are two main processes that occur in this re-modelling. One

process is the removal of brain cells that are not being used (“pruning”). Concurrently, there is myelination of the brain cells that remain. Myelination refers to thickening of the nerve

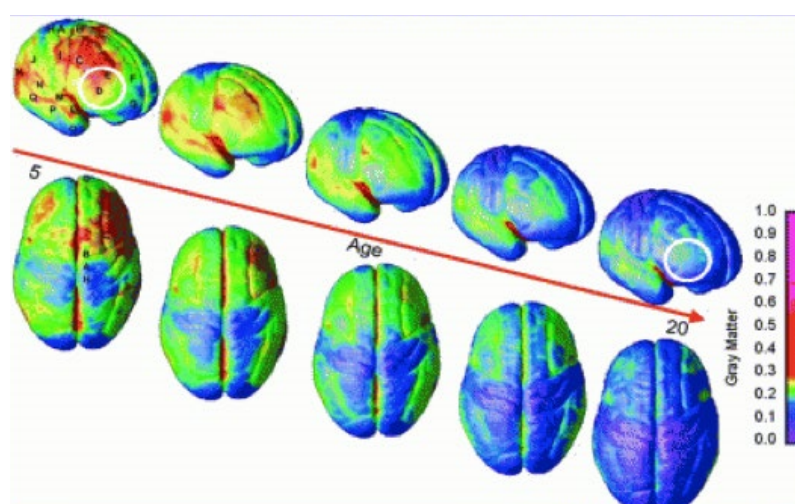
cells (lipid ‘sheaths’) to enable faster, more efficient signaling and better communication between frontal-subcortical brain regions.

FIGURE 1.⁵

MRI SCANS OF HEALTHY CHILDREN & TEENS OVER TIME

Although there is minimal physical growth in the brain size, there are multiple changes occurring in the brain between the age of 5 to 20 years.

This MRI timeline suggests the brain does not resemble that of an adult until early 20s.



5. Geidd, J, Blumenthal, J, Jeffries, N, Castilanos, F, Liu, H, Zijdenbos, A, Paus, T & Rapoport, J 1999, ‘Brain development during childhood and adolescence: A longitudinal MRI study’, *Nature Neuroscience*, 2:861-863.

The prefrontal cortex (see Figure 2) is the area of the brain associated with inhibition of impulsive behaviour, decision making and other cognitive functions. Delays in maturation of this area have been attributed to many

adolescent risk taking behaviours. The limbic system (see Figure 2) is the area of the brain which is responsible for emotions and in the formation of memories and past experiences. The reward pathway involves several parts

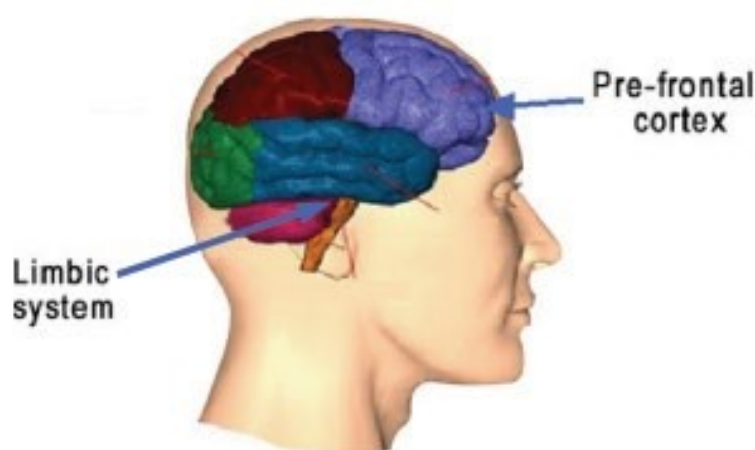
of the brain, including the limbic system and the prefrontal cortex, and plays a central role in the effects of drugs on the brain. Substance dependence arises from changes in the circuitry within this pathway.

Research shows that AOD use during adolescence can impair cognitive functioning not just during the adolescent period but into adulthood. For example, heavy alcohol use in young people can affect brain

maturation. Changes have been identified in both the structure and the function of the brain, some of which reflect the brain changes seen in older chronic heavy drinkers.⁷ Cannabis use in adolescence similarly shows

abnormalities in brain structure (for example, white matter quality) and function (that is, poorer neurocognitive performance).⁸

FIGURE 2.⁶



ADOLESCENCE AND SLEEP

Sleep during adolescence is affected by biological and psychosocial factors. Defining sleep need is contentious, according to Carskadon⁹, though the evidence does indicate a consistent decrease in sleep from ages 11 to 17.

Younger people fall asleep more quickly and spontaneously awaken while older individuals take longer to achieve

sleep, wake less spontaneously, and tend to experience a midday trough of alertness, regardless of nocturnal sleep amount. Insufficient sleep is associated with behavioural problems, immune system changes, mental health issues and substance abuse issues. Hasler et al¹⁰ found that the sleep pattern changes associated in adolescence may

increase the risk of alcohol use disorder. Tips on supporting good practices are included in [Appendix 7: Care Planning for Resilience](#). Wilson and Nutt¹¹ suggest short term medication can restore sleep patterns to normal with consideration to whether the problem is falling asleep or sleep interruptions when prescribing.

ADOLESCENT HEALTH RESOURCES

There are a number of adolescent health services available to individuals working with young people. See [Appendix 4: Adolescent Resources](#), for a list of some key contacts in each state who are either able to provide a youth service or who can advise on any other resources that exist to support the young person.

6. <http://www.theconnectedfamily.net/the-connected-familyblog/connect-correct>

7. Hermens, D.F. et al Pathways to alcohol-induced brain impairment in young people: A review. *Cortex* (2013) 49: 3-17

8. Squeglia, L. M., Jacobus, J., & Tapert, S. F. (2009). The Influence of Substance Use on Adolescent Brain Development. *Clinical EEG and Neuroscience: Official Journal of the EEG and Clinical Neuroscience Society (ENCS)*, 40(1), 31-38.

9. Carskadon, M.A.. (2012) Sleep in Adolescents: The Perfect Storm. *Pediatric Clinics of North America*. 58(3) p637-647.

10. Hasler, b.P., Soehner, A.M.& Clark, D.B. (2015) Sleep and circadian contributions to adolescent alcohol use disorder. *Alcohol* 49 (4) p377-387

11. Wilson, S. & Nutt, D. (2007) Treatment of Insomnia.. *Psychiatry*. 6(7) p301-304

YOUTH ALCOHOL AND DRUG USE AND GENDER

A YSAS report published in 2014 examined the profile of young people attending youth drug and alcohol services¹² and found that young women experience significantly higher levels of psychosocial complexity. Young women were more likely to be separated from their families, and to

have experienced physical, emotional and sexual abuse, or neglect. They were more likely to have past involvement with Child Protection and to have housing problems. Young women were also more likely to experience a higher increase in drug related harms, higher drug use severity, higher psychosocial

complexity, and to have mental health issues. The prevalence of self-injury and suicide attempts was found to be twice that of young men. In contrast, involvement of young women in criminal activity and in the justice system was found to be less when compared with young men.

YOUTH ALCOHOL AND DRUG USE AND FAMILY INCLUSIVE PRACTICE

Family plays an important role in supporting identity development, developing an individual's capacity to communicate and to grow inter-personal relationships, to understand conflict and to understand his/her place in society.

Research indicates that adolescents with poor family cohesion have an increased risk of substance abuse.¹³ Conversely, strong family cohesion reduces the risk of substance use problems.¹⁴ Given this, engaging family or a support person in the

young person's treatment plan is recommended, but only if the young person gives consent. Engaging family members should ideally begin as early as possible.

THIS IS FOR TWO REASONS:

1. To harness positive factors that will facilitate the young person's engagement with services (e.g. parental concern and encouragement)
2. To identify and address barriers sooner rather than later (e.g. lack of concerned adults willing to help the young person)

[See: Capacity to Consent](#)

HOW TO DISCUSS FAMILY/FRIEND SUPPORT WITH YOUNG PEOPLE, AN EXAMPLE:

"Is there anyone that you'd like to have join in the appointment or visit you in the detox unit, someone you feel has your best interests and knows you? Sometimes having a

family member or close friend to bounce things off gives off as we develop a care plan helps to develop a plan that works for you."

Note: There can occur situations in which families are a risk factor for a young person, for example in the case of significant lifelong neglect or abuse (physical, emotional or sexual). In such situations, support for the young person takes the form of working through these issues and helping him/her to understand he/she is not to blame. Further support may entail helping the young person determine what degree of contact he/she wishes to have with his/her family both at present and in the future.

CULTURALLY AND LINGUISTICALLY DIVERSE YOUNG PEOPLE (CALD)

Youth AOD clients are a culturally diverse group. The main CALD groups

being seen by Victorian Youth AOD Services include Aboriginal and Torres

Strait Islanders (ATSI), African, Maori and Pacific Islanders.

Victoria is Australia's most culturally diverse state and that diversity is growing. According to 2011 census data over 46% of Victoria's population were either born overseas or had a parent who was born overseas and more than 23% spoke a language other than English at home. Victoria's refugee population is also young. Over the last five years 6,068, or approximately 30% of Victoria's humanitarian arrivals, were aged between 12 and 24 years at the time of arrival. A further 30% were younger than 12 years.¹⁵

12. Kutin, J., Bruun, A., Mitchell, P., Daley, K., & Best, D. 2014. Young people in Victorian youth alcohol and other drug services. Data and key findings. Results from the Statewide Youth Needs Census (SYNC). Technical Report March 2014. Youth Support + Advocacy Service: Melbourne, Australia.

13. Toumbourou JW & Gregg M E 2001 'Working with families to promote healthy adolescent development. Family Matter., vol. 59, pp. 54-60

14. Fleming, C.B., Catalano, R.F., Haggerty, K.P. & Abbott, R. (2010) Relationships between level of change in family, school, and peer factions during two periods of adolescence and problem behavior at age 19. Journal of Youth and Adolescence. 39(6), 670-683

15. Centre for Multicultural Youth. 2014 Mind Matters: The Mental Health and Wellbeing of young people from diverse cultural background. CMY

CULTURALLY SENSITIVE COMMUNICATION

WHEN SUPPORTING CULTURALLY AND LINGUISTICALLY DIVERSE YOUNG PEOPLE, CULTURALLY SENSITIVE COMMUNICATION IS ESSENTIAL.

THE CORE ELEMENTS TO THIS COMMUNICATION ARE SIMILAR TO COMMUNICATION WITH YOUNG PEOPLE GENERALLY:

- Open and non-judgmental including in relation to differing values
- Explanation of principle confidentiality
- Use of open ended questions
- Avoidance of language that is free of jargon
- Reassurance to allay fears
- Where possible, access to same gender staff when discussing sexual and reproductive health

Culturally sensitive care planning also includes themes that are similar to care

planning with young people who have AOD problems.

ISSUES THAT FREQUENTLY ARISE AND MUST BE TAKEN INTO CONSIDERATION INCLUDE:

- Not having a trusted adult in their lives
- Exposure to violence based on cultural background
- Increased prevalence of violence/ torture
- Potential victims of sexual abuse
- Potential childhood neglect
- Contact with Child Protection system and/or Youth Justice
- Unmet service needs for education
- Literacy problems
- Higher prevalence of undiagnosed intellectual disability

Priorities in health and well-being can differ between different cultures. For example, Sudanese refugees settling in Australia have been shown to have high rates of depression, anxiety and post traumatic stress disorder (PTSD).

However, many Sudanese Australians are more concerned with current acculturative stressors such as family problems, employment issues, housing and transport than they are about past trauma.^{16,17} Therefore, supporting these

young people should focus more on their presenting issues rather than on past trauma. It is also important to note that different cultures express mental health concerns in different ways and this can impact on care planning.

In discussions with young people about the points above, it is important to bear in mind that these young people are adapting to a new cultural environment whilst concurrently attempting to develop their identity. This can provide

an added dimension to discussions with young people, especially with regard to what function AOD fills for them and also with regard to harm reduction ([See also: "Functions of AOD Use" Page 20](#)).

A useful resource to working with CALD young people is: Victorian Transcultural Mental Health <http://www.vtmh.org.au/>

LESBIAN, GAY, BISEXUAL, TRANSGENDER OR INTERSEX¹⁸ (LGBTI) ADOLESCENTS

During adolescence, most young people want to understand their sexuality. Societal attitudes to Lesbian, Gay, Bisexual, Transgender or Intersex (LGBTI) individuals are evolving, and this can make it a bit easier for some people to accept their sexual orientation.

However, AOD abuse still occurs at a high frequency within this community. For young LGBTI people, AOD problems and the concurrent

issue of acknowledging their sexuality in the context of their peers, parents and other influences in society can be a challenge. Issues such as bullying, discrimination and victimization, along with lack of familial and peer acceptance, can increase risk-taking behavior in this group.

LGBTI clients may also be reluctant to access services because of the fear of stereotyping. Marshall¹⁹ has suggested that "the odds of substance for LGB

youth were, on average, 190% higher than for heterosexual youth and substantially higher within some sub-populations of LGB youth (340% higher for bisexual youth, 400% higher for females)."

Therefore it is recommended that clinicians routinely ask a young person his/her sexual orientation and gender identity as part of the initial assessment.

16. https://www.health.qld.gov.au/multicultural/health_workers/Sudanese2011.pdf

17. Tempamy M. What research tells us about the mental health and psychosocial wellbeing of Sudanese refugees: A literature review. *Transcultural Psychiatry* 2009;46:300-315.

18. Intersex: a term used to refer to an individual born with a reproductive or sexual anatomy that does not conform exclusively to male or female norms in terms of physiological sex. Hodges, C. (2013). Working with GLBTI young people. In A. Bruun & P. Mitchell (Eds.) *YouthAOD Toolbox*. www.youthaodtoolbox.org.au. Melbourne: YSAS.

19. Marshal, M. P., Friedman, M. S., Stall, R., King, K. M., Miles, J., Gold, M. A., Morse, J. Q. (2008). Sexual orientation and adolescent substance use: a meta-analysis and methodological review. *Addiction* (Abingdon, England), 103(4), 546-556

DO NOT ASSUME EVERYONE IS HETEROSEXUAL OR THAT EVERYONE’S PARENTS ARE HETEROSEXUAL. FEEL COMFORTABLE TO USE THE WORDS GAY, LESBIAN, BISEXUAL, AND TRANSGENDER APPROPRIATELY WHEN TALKING WITH YOUNG PEOPLE, WORK COLLEAGUES AND SERVICE MANAGERS. IF YOU DON’T FEEL COMFORTABLE WITH THIS, HOW IS A YOUNG PERSON ACCESSING YOUR SERVICE SUPPOSED TO FEEL?

A useful resource is available via the Youth AOD toolbox, [“Introduction to GLBTI young people.”](#)

TRAUMA INFORMED CARE

A HISTORY OF TRAUMA IS COMMON IN YOUNG PEOPLE WITH POLY-SUBSTANCE USE. HOWEVER, ADOLESCENTS MAY EXHIBIT RESPONSES TO EVENTS THAT CAN SOMETIMES SEEM LIKE NORMAL ADOLESCENT BEHAVIOUR. A CAREFUL ASSESSMENT TO DISCERN WHAT MAY BE NORMAL ADOLESCENT BEHAVIOUR AND WHAT IS AN EXPRESSION OF A TRAUMATIC EXPERIENCE IS NEEDED.²⁰

CHILDREN AGES 6 TO 11 YEARS MAY SHOW COMBINATIONS OF THE FOLLOWING RESPONSES:

INTERNALIZING SYMPTOMS:

- Extreme withdrawal; emotional numbing or “flatness”; irrational fears; somatic complaints; depression; anxiety; guilt; inability to pay attention; other regressive behaviours, including sleep problems and nightmares.

EXTERNALIZING BEHAVIOURS:

- Irritability; outbursts of anger and fighting; school refusal.

ADOLESCENTS AGES 12-17 YEARS, IN GENERAL, MAY EXHIBIT RESPONSES SIMILAR TO THOSE OF ADULTS, WHICH INCLUDE:

INTERNALIZING SYMPTOMS:

- Emotional numbing; avoidance of stimuli; flashbacks and nightmares; confusion; depression; withdrawal and isolation; somatic complaints; sleep disturbances, academic or vocational decline; suicidal thoughts; guilt; revenge fantasies.

EXTERNALIZING BEHAVIOURS:

- Interpersonal conflicts; aggressive responses; school refusal or avoidance; substance abuse; antisocial behaviour.

OTHER INDICATORS THAT MAY BE CLUES TO A HISTORY OF TRAUMA INCLUDE:

- Young people who present in crisis,
- Young people who use sedatives as their drug of choice
- Young people with a history of poor engagement with authority or with services, be that at school, in out of home care (OOHC) or in the healthcare context.

Note: Diagnosis and management for PTSD is needed to support young people in the AOD withdrawal process.

THERE ARE FOUR PRINCIPLES OF TRAUMA-INFORMED CARE.²¹ THESE INCLUDE:

- Trauma awareness
- Emphasis on safety
- Opportunities to rebuild control
- Strengths-based approach

There is an emerging body of evidence that focuses on working with young people who have experienced trauma.

Trauma informed care within these guidelines is intended to support clinicians to be cognisant to develop care

plans that address the needs of young people where trauma may be indicated.

20. Hodas, G.R. (2006) Responding to Childhood Trauma: The Promise and Practice of Trauma Informed Care. Pennsylvania Office of Mental Health and Substance Abuse Services.

21. <http://www.youthadtoolbox.org/key-principles-trauma-informed-care>

VULNERABILITY AND RESILIENCE

Vulnerability and Resilience are relevant concepts in the youth alcohol and other drug (AOD) services. Vulnerability refers to the potential for risk factors and/or adverse experiences to negatively influence health and well-being outcomes in young people.

In 2010, the Victorian Government (DHS) developed a [Vulnerable Youth Framework Discussion Paper](#) to guide policy development and service

provision. According to the paper, vulnerable young people are “Young people who, through a combination of their circumstances and adolescent risk-taking behavior, are at risk of not realizing their potential to achieve positive life outcomes.”

Resilience refers to a person’s capacity to face, overcome and even be strengthened by life’s adversities. Resilience research has made a

significant contribution to how young people experiencing vulnerability can be guided and supported to achieve better health and developmental outcomes. The following table represents the psychosocial domains often present in a client’s life that may increase their vulnerability.

Criminal justice issues	<ul style="list-style-type: none"> • Criminal activity in the last 4 weeks or, • Criminal justice system involvement ever
Abuse or neglect	<ul style="list-style-type: none"> • Experienced abuse, neglect or been a victim of crime (Ever) • Involved in child protection (Ever)
Family issues	<ul style="list-style-type: none"> • Conflict or disconnection with family relatives (Last 4 weeks)
Problems at school	<ul style="list-style-type: none"> • Suspended, expelled, or disruptive behaviour at school (Ever)
No meaningful activity	<ul style="list-style-type: none"> • Not employed or not at school (Current)
Suicide or self-harm	<ul style="list-style-type: none"> • Attempted suicide or self-harm (Ever)
Housing instability	<ul style="list-style-type: none"> • Acute housing problems (Last 4 weeks)
Mental health	<ul style="list-style-type: none"> • Mental health diagnosis (Current)
Quality of life	<ul style="list-style-type: none"> • Average ATOP score²³ • Score between 0 and 4

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STAGES OF CHANGE FRAMEWORK

THE STAGES OF CHANGE MODEL OF PROCHASKA AND DICLEMENTE²⁴ DESCRIBES THE PHASES INDIVIDUALS GO THROUGH BEFORE A CHANGE IN BEHAVIOR OCCURS. ADOLESCENCE IS A TIME OF GROWTH AND DEVELOPMENT AND INITIALLY ADOLESCENTS ARE USUALLY IN THE ‘HAPPY’ USER/ PRE-CONTEMPLATIVE PHASE.

The Stages of Change framework is useful in practice because it enables youth workers and other health professionals to help young people understand the functions their

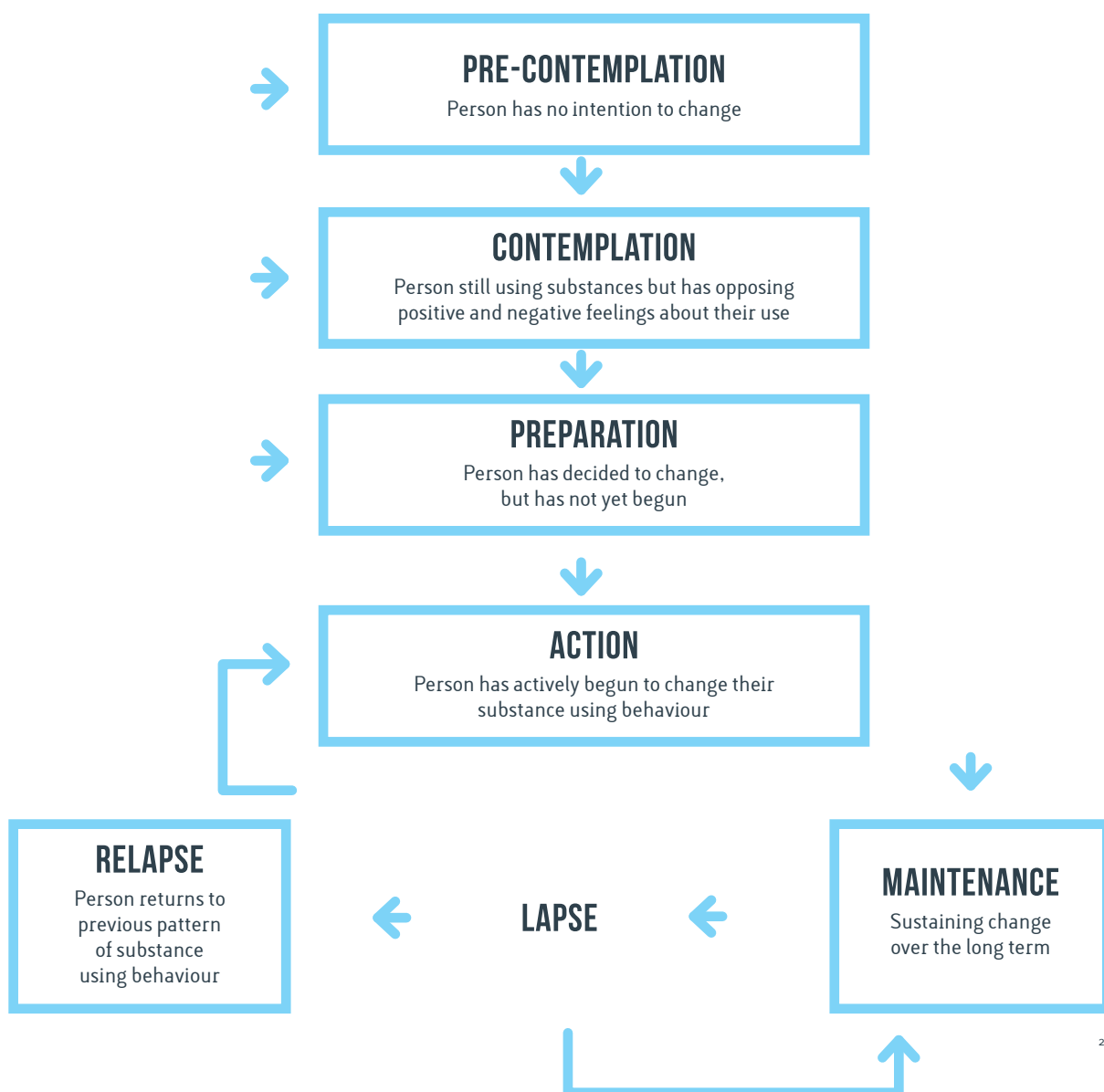
substance use fills for them (See also section on “[Harm Reduction](#)” and “[Functions of AOD Use](#)” Page 20), and also the consequences of their substance use.

In doing so, clinicians are able to better support an individual’s motivation to change their AOD use for improved outcomes in health and well-being.

22. Bruun, A. (2015) The Victorian Youth Alcohol and Other Drug Service System: A vision realised. March 2015. Youth Support +Advocacy Service, Melbourne, Australia

23. ATOP Project Team (2013) *ATOP Manual for ATOPv4*. Unpublished Manual for NSW Health, Sydney

24. Prochaska et al. “In search of how people change. Applications to addictive behaviors” *American Psychologist* (1992) 47: 9: 1102 - 1114



25

SUBSTANCE USE DISORDERS

SUBSTANCE USE DISORDERS WERE ONCE REFERRED TO IN TERMINOLOGY SUCH AS “ABUSE” AND “DEPENDENCE.” HOWEVER, IN RECENT REVISIONS OF BOTH THE DSM AND THE ICD, THESE DIAGNOSES HAVE BEEN REVIEWED.

SUBSTANCE USE DISORDERS (DSM 5)

Substance use disorder refers to a cluster of cognitive, behavioral, and physiological symptoms indicating

that the individual continues using the substance despite significant substance related problems. In severe substance use disorder pathological changes have usually occurred in brain circuits.

These issues persist beyond detoxification (AOD withdrawal) and can drive relapse to substance use.

[Appendix 1: DSMV classification chart](#)

ICD-10 CLINICAL DESCRIPTION OF DEPENDENCE

A cluster of physiological, behavioural, and cognitive phenomena in which the use of a substance or a class of substances takes on a much higher

priority for a given individual than other behaviours that once had greater value. A central descriptive characteristic of the dependence syndrome is the desire (often strong, sometimes overpowering) to take psychoactive drugs (which may or may not have

been medically prescribed), alcohol, or tobacco. There may be evidence that return to substance use after a period of abstinence leads to a more rapid reappearance of other features of the syndrome than occurs with nondependent individuals.

25. <http://www.youthadtoolbox.org/stages-change>

ALCOHOL AND OTHER DRUG WITHDRAWAL IN YOUNG PEOPLE

AOD WITHDRAWAL OCCURS WHEN AN INDIVIDUAL IS SUBSTANCE DEPENDENT.

[Appendix 2](#) provides a short checklist to help clinicians determine the likelihood of AOD withdrawal in individuals. As discussed earlier, apart from AOD

withdrawal symptoms, a key part of AOD withdrawal in adolescents involves supporting them in their emotional and cognitive development

during the withdrawal episode. Some individuals benefit from a residential withdrawal admission or even a hospital admission for their AOD withdrawal.

PRINCIPLES OF AOD WITHDRAWAL MANAGEMENT IN ADOLESCENCE

One of the primary principles of adolescent withdrawal management is to enable the young person to

be safe and supported during the withdrawal period. There are several different options regarding where AOD withdrawal can occur, including within a young person's home with daily visits from the AOD service ('home-based

withdrawal'), at an AOD residential withdrawal unit or within a hospital.

Choice of context can be an important factor for a successful withdrawal episode.

Note: Home-based withdrawal is not appropriate in moderate to severe AOD dependence, refer to [Appendix 2: Quick Reference Guide – Risk of Withdrawal](#).

Apart from the context, ongoing clinical care and support is important. This may take the form of counselling, alternative therapies, diversional therapy and/

or pharmaceutical support. Finally, planning for post withdrawal care needs to commence early, even prior to admission. AOD withdrawal is

only the first step in addressing AOD problems. Maintenance of change after withdrawal is key to longterm success.

AOD WITHDRAWAL TREATMENT OPTIONS FOR YOUNG PEOPLE

A RANGE OF AOD WITHDRAWAL TREATMENT OPTIONS FOR YOUNG PEOPLE. THESE INCLUDE:

- Youth worker support
- Youth Home Based Withdrawal (HBW) Program
- Youth residential unit stay
- Medical admission to residential detoxification unit
- Hospital admission (only for severe, complicated cases)

USE OF WITHDRAWAL SCALES IN YOUNG PEOPLE

There are numerous AOD withdrawal scales that can assist clinicians to assess severity of withdrawal and guide the titration of medications used in withdrawal. Use of these scales in young people does, however, require a degree of caution.

YSAS's past experiences indicate that whilst withdrawal scales can assist staff to review the efficacy of medications, asking young people a 'checklist'

of physiological symptoms can be misinterpreted (e.g. anxiety related to withdrawal versus underlying anxiety disorder) and can sometimes have the effect of 'conditioning' the young person to give a response that is likely to be 'rewarded' by medication.

Withdrawal scales can assist assessment but should never replace clinical assessment on a case by case basis. Adolescents may not have

the language of withdrawal. Whilst they are aware of some symptoms of withdrawal such as cramping, sweating etc., other physiological symptoms that professionals assess may not be familiar to young people.

It is helpful to ask the young person to describe his/her symptoms, as well as to confirm that the symptoms described concur with what the terms means.

A CONVERSATION A WORKER OR HEALTH PRACTITIONER MAY HAVE WITH A YOUNG PERSON, AN EXAMPLE:

"What are you feeling since you stopped using? When you say you have 'cramps' where are you feeling them?" Wait a little before prompting... "Are they in your

stomach?" Wait a little..."Anywhere else? Do you feel any aches in your legs? Do you have any aches or pains elsewhere?" Wait a little... "Any aches in your back?"

USING RISK AND PROTECTIVE FACTORS TO ADVISE AOD WITHDRAWAL APPROACH

BELOW IS A VISUAL MATRIX DESIGNED TO ASSIST CLINICIANS IN EVALUATING THE BEST OPTIONS FOR A YOUNG PERSON WHO PRESENTS SEEKING SUPPORT WITH HIS/HER AOD WITHDRAWAL.

The matrix is adapted from the HEADSS²⁶ assessment tool and integrates many risk and protective factors that are significant influences in adolescent development.

Protective Factor Domains: home, family, education, engagement, activities, peer connectedness

Risk Factor Domains: substance abuse; sexual activity; risk taking activities

RISK/ PROTECTIVE FACTOR	INTERVENTION TYPE					
		Brief intervention and refer to local community agency	Community support via youth worker	Home Base Withdrawal, + - pharmacotherapy support	Youth Residential Unit	Medical admission to residential withdrawal unit
	Housing Crisis	Lives with parents/ family/ friends	Unstable housing	Unstable housing	Unstable housing	NA
	Relationship Conflict	Family/peer network	Unstable family or peer network	stable family or peer network	Nil significant other and or poor peer/family support	Nil significant other and or poor peer/family support
	Child Protection (CP)	NA	Child protection (CP) history	Current/previous CP client	Current/previous CP client	Current/previous CP client
	Problems at School/work	Engaged in schooling/work	School counsellor/ headspace	Truant, unemployed	Truant, unemployed	Truant, unemployed
	Not employed/ not in school		Truant, unemployed	Truant, unemployed	Truant, unemployed	Truant, unemployed
	Youth Justice History (YJ)	No youth justice/ criminal history	No YJ history	No YJ history	YJ order/YJ history	YJ order/YJ history
	Using Benzodiazepines or Alcohol	NA	Infrequent usage	Using less than daily for a month	Using daily over last 28 days	Using one or more daily for last 7 days
	Using Opiates/ Intravenous usage	NA	NA	Using regularly	Using regularly	Daily use
	Abuse or Neglect	NA	Has experienced abuse neglect	History of abuse/ neglect	History of abuse/ neglect	History of abuse/ neglect
	Mental Health issues	Low level Anxiety or Depression	Low level Anxiety or Depression	Low level Anxiety or Depression	History of Mental health admission, MH diagnosis or medicated for MH illness	

In 2014, YSAS data indicated that the most common mode of engagement of young people in AOD treatment agencies was through outreach (64%),

followed by counselling (20%), day programs (5%), residential withdrawal (4%), non-residential withdrawal (4%), long-term residential care.

Seven percent of young people were involved in some form of residential rehabilitation.

26. Goldenring, JM, Rosen, D.S. (2004) Getting into adolescent heads: An essential update. Contemporary Pediatrics. 21(1) 64-90

AOD WITHDRAWAL CARE PLANNING/NON-MEDICATION APPROACHES IN YOUNG PEOPLE

An essential part of supporting young people to cease or reduce their substance use is to provide them with strategies to help with disturbed sleep, sweating/ hot and cold flushes, muscle cramps and aches, poor appetite, constipation, diarrhoea, nausea,

vomiting, anxiety, restlessness and cravings. A list of strategies that YSAS typically advocates is located at [Appendix 7: Care Planning for Resilience](#). In its 18 years of operating residential withdrawal units, YSAS has observed that nutrition, hydration and

sleep are often overlooked in supported withdrawal, despite being a vital part of the biological process. Encouraging young people to attend to these practices is advocated.

MEDICATIONS TO SUPPORT AOD WITHDRAWAL IN YOUNG PEOPLE

THE ROLE OF MEDICATIONS IN SUPPORTING ADOLESCENTS IS TO:

- Address symptomatic withdrawal
- Treat physical or mental health issues that increase AOD use/abuse
- In some individuals, transfer to maintenance pharmacotherapy

YSAS recommends that medications to support withdrawal be considered for the withdrawal period only. The medical practitioner working with the young person is best positioned to consider longer term prescribing for issues such as anxiety, depression, ADHD or other, which the young person may either present with on admission for withdrawal or which become evident during the withdrawal phase.

If ongoing medications are prescribed, especially initially, fortnightly to monthly review is recommended to assess therapeutic efficacy and effectiveness of the medication regimen, as well as to monitor for iatrogenic polypharmacy (where several different practitioners are prescribing for the same individual). In YSAS's experience, there is a tendency to see young people prescribed a number of

different medications, and often the clients are unsure as to why or for how long they have been on them.

Explanation (verbal and written) about what the medications are for and how they are expected to be of benefit is part of supporting the young person to understand his/her health and how he/she can make the most of assistance available.

YSAS RECOMMENDS PRESCRIPTIONS FOR 14 DAYS DURATION OF MEDICATION RATHER THAN ONGOING PRESCRIPTIONS AND/OR REPEAT PRESCRIPTIONS, GENERALLY WITH A REVIEW OF CLIENT SCHEDULED FOR DAY 7. THIS IS FOR SAFETY PURPOSES AS WELL AS TO FACILITATE ENGAGEMENT OF THE YOUNG PERSON IN TREATMENT. YSAS ALSO RECOMMENDS MEDICATIONS BE PUT INTO A WEBSTER PACK BY THE DISPENSING PHARMACY TO ASSIST YOUNG PEOPLE TO TAKE MEDICATIONS AS PRESCRIBED.

Note: Young people may sometimes complain about this approach. Pre-empting this with an explanation about it can be helpful: "The medications I am going to prescribe will be in a Webster pack for you. The reason for this is to make it easier to remember which medications to take and when. It can be very easy to forget a dose here or there or to sometimes take the medications at the wrong time so the Webster pack helps avoid that. Also, if you bring the Webster pack to your next appointment with me we can see which tablets you may have missed and we can try to together work out a way of how to make it easier for you to remember to take them."

BENZODIAZEPINES IN ACUTE WITHDRAWAL

Benzodiazepines such as diazepam are commonly prescribed to treat the symptoms of AOD withdrawal.

Benzodiazepines can have a useful role as short-term medication for anxiety or agitation during withdrawal and may be considered as an option for those young

people with sound support in place. They should not be continued post withdrawal unless there is a justifiable reason to do so. Benzodiazepines should never be prescribed without a comprehensive management plan and monitoring procedure in place.

That is, in conjunction with psychosocial support as per established youth work principles. YSAS advocates a maximum 14 days supply with reassessment for efficacy at a minimum of 7 and 14 days.

USE OF ANTIPSYCHOTIC MEDICATIONS IN WITHDRAWAL

Antipsychotics should not be routinely prescribed in withdrawal. Research suggests that “the majority of youth who receive an antipsychotic medication do not have a diagnosis of psychotic disorder”.^{27, 28}

YSAS has observed a significant increase in the prescribing of quetiapine (“Seroquel”) to young people who have do not have a provisional diagnosis of schizophrenia, bipolar disorder or anxiety.

Such off label quetiapine prescribing has also been observed in the research literature which indicates that quetiapine is the most commonly prescribed antipsychotic in adolescents.²⁹

Quetiapine is one of several prescribed medications that are frequently diverted (used by individuals who are not prescribed this medication).³⁰

Quetiapine is best prescribed for specific symptoms that are discussed

with the young person so that they understand what the medication is for. As noted earlier, prescriptions are best issued for short time periods only, with no repeat prescription until review.

Quetiapine is associated with Metabolic Syndrome and so monitoring of weight, height and Body Mass Index (BMI), should be conducted as outlined in the table below.

Note: Other medications used in AOD withdrawal are discussed in each section for the different AOD groups.

ADAPTED FROM SVHM MENTAL HEALTH METABOLIC MONITORING 2015

	BASELINE	3 MONTHS	6 MONTHS	12 MONTHS	18 MONTHS	24 MONTHS	30 MONTHS	36 MONTHS
HEIGHT								
WEIGHT								
BMI								
WAIST								
BP								
FASTING BLD GLC								
LIPIDS (CHOL LDL, HDL, TRIG)								
U&E								
LFT								

MENTAL HEALTH CARE PLANS

One of the greatest burdens of disease in adolescence is attributable to mental health problems. There is a discreet time band during the teenage years into young adulthood during which mental

health issues may present, with or without AOD being involved. Up to 75% of people suffering an adult psychiatric disorder experienced its onset by 24 years of age.³¹

A mental health care plan is often beneficial and can be developed in consultation with the young person and his/her family/care team.

THE BETTER ACCESS INITIATIVE GPS CAN REFER PATIENTS FOR MEDICARE REBATED SERVICES, INCLUDING:

- headspace services
- Community based psychiatrists, clinical psychologists, social workers and occupational therapists.

27. Olsson, M., Blanco, C., Liu, L., Moreno, C. and Laje, G. (2006) National Trends in the Outpatient Treatment of Children and Adolescents With Antipsychotic Drugs. *Archive of General Psychiatry*. 63(6) 679-685

28. Stallerm J.A., Wade, M.J. and Baker, M. (2005) Current Prescribing Patterns in Outpatient Child and Adolescent Psychiatric Practice in Central New York. *Journal of Child and Adolescent Psychopharmacology*. 15(1). 57-61.

29. Karanges, E.A., Stephenson, C.P. & McGregor, I.S. (2014) Longitudinal trends in the dispensing of psychotropic medications in Australia from 2009-2012: focus on children, adolescents and prescriber speciality. *Australia and New Zealand Journal of Psychiatry*. Oct; 48(10) 917-31

30. Wood, D. (2015) Drug Diversion Australian Prescriber 38 (5); 164-167

31. Kessler, R.C., Berglund, P., Demler, O., Jin, R., Merikangas, K.R. & Walters, E.E. (2005) Lifetime prevalence and age of onset distributions of DSM-IV disorders in the National Comorbidity Survey Replication. *Archive of General Psychiatry*. 62(6) p593-602

Medical rebate services entitle the young person to approximately ten sessions with a mental health specialist, and can help young people

to address their health and well-being needs. Medicare consultation item numbers are available at [Better Access to Psychiatrists, Psychologists and](#)

[General Practitioners through the MBS \(Better Access\) initiative.](#)

HARM MINIMISATION

Harm Minimisation is based on a Public Health model and addresses the negative health, social and economic consequences of AOD on the individual and the community. Harm Minimisation is based on the

three principles of i) reducing supply, ii) reducing demand and iii) reducing the harm that AOD can cause. Harm Reduction is the third domain of Harm Minimisation and refers to strategies which reduce the adverse health, social

and economic consequences of AOD use. It aims to reduce the harmful consequences of legal and illegal drug use, without necessarily stopping usage.

[See Appendix 7: Care Planning for Resilience](#)

FUNCTIONS OF AOD USE³²

In several earlier sections, there has been reference to the functions that AOD use fulfills for young people. Below is a table listing some of the

functions that are recognized for AOD use. Discussing these functions with young people can be helpful in increasing motivation to change,

in diagnosing underlying mental health problems and in engaging individuals with health services or other.

DOMAIN	ITEM
Changing mood	Make yourself feel better when down or depressed Help you stop worrying about a problem Help you to relax Help you feel elated or euphoric Just get really stoned or intoxicated
Physical effects	Enhance feelings when having sex Help you to stay awake Help you lose weight Help you to sleep Help control Mental Health Symptoms Help control symptoms of physical disease (chronic dental pain etc.)
Social purposes	Help you enjoy the company of your friends Help you feel more confident or more able to talk to people in a social situation Help you lose your inhibitions Help you keep going on a night out with friends
Facilitate activity	Help you to concentrate or to work or study Enhance an activity such as listening to music or playing a game or sport Help make something you were doing less boring
Manage effects from other substances	Improve the effects of other substances Help ease the after effects of other substances

32. Boys, K., Marsden, J. & Strang, J. (2001) Understanding reasons for drug use amongst young people: a functional perspective. Health Education Research. 16(4) 457-469

EMERGING DRUG USE PATTERNS

SINCE 2012, ICE (CRYSTAL METHAMPHETAMINE) HAS RECEIVED A LARGE PORTION OF MEDIA COVERAGE. YSAS ANNUAL DATA DOES SHOW INCREASING USE OF ICE IN YOUNG PEOPLE.

However, alcohol, cannabis and tobacco still remain the most frequently used drugs by adolescents, and the drugs that they are most concerned about. Increasing use of non-steroidal anti-inflammatories (NSAIDS), paracetamol, codeine and oxycodone are emerging,³³ however there is a lack of substantive data at this stage to indicate the prevalence of abuse of these medications specifically in young people. YSAS recommends that practitioners ask about use and abuse of these medications as part of a routine screen, to establish the risk of harms related to over-use of these medications and to offer an opportunity to provide health education. For all emerging drugs, understanding a clients function of use and working with them to develop practical strategies is essential to positive outcomes.

ASSESSMENT OF YOUNG PEOPLE

The YoDDA Assessment tool covers AOD, health, school, work, living situation, family, friends, and involvement with the law. YSAS sees this as a way of supporting young people to make a decision to address their substance use and to support the individual in the process of moving from the stage of pre-contemplation to contemplation. <http://www.workingitoutwithyodaa.org.au/> assessment and is presented below. Adolescence is the time of growth and development and the intent of the HEADSS³⁴ is to structure a conversation with the young person that moves from un-intrusive to personal questions allowing time for rapport development.

HEADSS³⁴

HOME	Who lives with you? Where do you live? Do you have your own room? What are relationships like at home? To whom are you closest at home? To whom can you talk at home? Is there anyone new at home? Has someone left recently? Have you moved recently? Have you ever had to live away from home? (Why?)
EDUCATION & EMPLOYMENT	What are your favorite subjects at school? Your least favorite subjects? How are your grades? Any recent changes? Any dramatic changes in the past? Have you changed schools in the past few years? What are your future education/employment plans/goals? Are you working? Where? How much?
ACTIVITIES	What do you and your friends do for fun? (with whom, where, and when?) What do you and your family do for fun? (with whom, where, and when?) Do you participate in any sports or other activities? Do you regularly attend a church group, club, or other organized activity?
DRUGS AND ALCOHOL	Do any of your friends/family use tobacco? Alcohol? Other drugs? Do you use tobacco? Alcohol? Other drugs? Is there any history of alcohol or drug problems in your family? Does anyone at home use tobacco?
SEXUALITY	Have you ever been in a romantic relationship? Have any of your relationships ever been sexual relationships? Are your sexual activities enjoyable? What does the term “safe sex” mean to you? Are you interested in boys? Girls? Both?
SUICIDE, DEPRESSION	Do you feel sad or down more than usual? Do you find yourself crying more than usual? Are you “bored” all the time? Are you having trouble getting to sleep? Have you thought a lot about hurting yourself or someone else?

33. Karanges, E.A, Blanch, B., Buckley, N.A. & Pearson, S.A(2016) Twenty-five years of prescription opioid use in Australia: A whole-of-population analysis using pharmaceutical claims. British Journal of Clinical Pharmacology. doi: 10.1111/bcp.12937
 34. Goldenring, JM, Rosen, D.S. (2004) Getting into adolescent heads: An essential update. Contemp Pediatr. 21(1) 64-90

ALCOHOL

**ALCOHOL IS A CENTRAL NERVOUS SYSTEM
DEPRESSANT, WHICH CAUSES DEPRESSION
OF RESPIRATION, COUGHING REFLEX, GAG
REFLEX AND CARDIOVASCULAR FUNCTION**

EFFECTS OF ALCOHOL³⁵

SIGNS OF INTOXICATION:

- Smell of alcohol
- Ataxia (loss of balance, unsteadiness on feet)
- Slurred speech
- Loss of inhibition
- Depression
- Altered behaviour and cognition
- Altered mood/emotions
- Inappropriate behaviour/emotional responses
- Relaxation, euphoria, confusion, disorientation
- Analgesic (pain killing) and anaesthetic effects
- Altered consciousness
- Positive breath/blood alcohol reading

SIGNS OF ALCOHOL OVERDOSE:

- Strong smell of alcohol
- Stupor or coma
- Cold and clammy skin
- Hypothermia
- Hypotension
- Laboured and noisy respiration
- Tachycardia (fast pulse: over 100 beats per minute) or bradycardia (slow pulse: less than 40 beats per minute)
- Positive blood alcohol reading

MANAGEMENT OF ALCOHOL WITHDRAWAL

CONSUMPTION AT RATES GREATER THAN THE NHMRC RECOMMENDED LEVELS OF FOUR STANDARD DRINKS ON A SINGLE OCCASION AND TWO STANDARD DRINKS ON A REGULAR BASIS INCREASES HEALTH RISKS ACUTELY AND IN THE LONGER TERM RESPECTIVELY.

People who have been consuming above this rate over a period of many weeks may be at risk of alcohol withdrawal. The pattern of alcohol use in adolescents is often a “binge”

pattern and may not result in any obvious physical withdrawal symptoms. If the withdrawal syndrome does occur, it usually begins within six to 24 hours after the last alcoholic drink.

In rare cases, young people who have developed a tolerance to alcohol; may experience withdrawal syndrome that may begin before the breath or blood alcohol reading has returned to zero.

FEATURES OF ALCOHOL WITHDRAWAL

MILD WITHDRAWAL:

Signs and symptoms may occur within 6–24 hours after stopping or substantially reducing alcohol intake.

Simple withdrawal symptoms usually peak within 48 hours and rapidly subside over the following days.

- Mild anxiety (will respond to reassurance)
- Mild sweating / perspiration
- Slight tremor
- Headaches
- Insomnia / Sleep disturbance
- Mild dehydration
- Mild hypertension

35. Stewart, D.G. Brown, S.A. Withdrawal and dependency symptoms among adolescent alcohol and drug abusers. *Addiction*. 1995 May;90(5):627-35

SUPPORTIVE CARE IN ALCOHOL WITHDRAWAL

Information about what to expect

- Supportive counselling from residential detox staff, allied health workers, medical practitioner
- Psychological support from carers in Home Based Withdrawal
- Education about drinking fluids and maintaining nutrition through withdrawal period

Refer to [Appendix 6: Prescribing Options for Withdrawal](#)

As with other drug withdrawal, the young person needs to work through practical strategies to address his/her triggers for drinking. Strategies to deal with stressful events may be of value in addressing drinking.

See [Appendix 7: Care Planning for Resilience](#).

Encouraging the young person to complete a weekly diary ([Appendix 5. One Week Consumption Calendar](#)) may also enable identification of entrenched habits that can be addressed instead of substance use.

SEVERITY OF ALCOHOL WITHDRAWAL

The severity of alcohol withdrawal can range from mild (sometimes called 'simple') to severe (sometimes called 'complex' or 'complicated').

Severe alcohol withdrawal is potentially life threatening. Early recognition and appropriate management of the beginning stages of withdrawal is crucial to prevent its progression into the severe, life-threatening phase. Convulsions usually occur within the

first 72 hours but can sometimes occur later. In rare and severe cases young people may experience visual, tactile or auditory hallucinations during alcohol withdrawal. Any individual who has a history of complicated alcohol withdrawal must not undergo subsequent alcohol withdrawals in a community setting. These individuals must be in a medically supervised withdrawal unit or a hospital.

SEVERE ALCOHOL WITHDRAWAL IS AN URGENT MEDICAL CONDITION REQUIRING MEDICAL SUPPORT.

DELIRIUM TREMENS (DTs)

DTs ARE THE MOST SEVERE FORM OF ALCOHOL WITHDRAWAL SYNDROME, AND IS A MEDICAL EMERGENCY REQUIRING TRANSFER TO A HOSPITAL FOR ASSESSMENT.

DTs usually develop two to five days after cessation or significant reduction of alcohol consumption, but may take seven days to appear. The usual course is three days, but can be up to 14 days.

It is unusual for adolescents to suffer from DTs, however if the young person has been abusing alcohol heavily and for a significant length of time, DTs may occur if they are not adequately medicated.

Delirium tremens manifests as:

- Acute confusion and profound disorientation
- Extreme fear
- Delirium
- Dehydration
- Elevated body temperature

- Sweating
- High blood pressure (hypertension)
- Rapid pulse (tachycardia)
- Tremor
- Hallucinations – tactile, visual or auditory

MEDICATIONS TO SUPPORT FOR ALCOHOL WITHDRAWAL

DIAZEPAM TREATMENT IS BEST USED EARLY IN THE COURSE OF ALCOHOL WITHDRAWAL SYNDROME TO PREVENT PROGRESSION TO MORE SEVERE WITHDRAWAL.

THE THREE MOST COMMONLY USED APPROACHES ARE:

1. Symptom-triggered sedation: where doses of diazepam are administered according to the severity of withdrawal symptoms (usually measured using Alcohol Withdrawal Scale)
2. Tapering dose regimens: where a predetermined dose of diazepam is administered in tapering doses over 2– 6 days (recommended for outpatient withdrawal)
3. Diazepam loading: which involves giving a large dose of diazepam on day 1, then no further diazepam (recommended for inpatient unit withdrawal only)

THIAMINE DEFICIENCY/WERNICKE'S ENCEPHALOPATHY

Alcohol consumption can cause nutritional deficiencies, especially of the B group vitamins. For this reason, all heavy drinkers are advised to take 100mg thiamine daily and ongoing while the heavy alcohol consumption is occurring.

Thiamine deficiency is a cause of confusion and in its most severe form can precipitate the condition called Wernicke's Encephalopathy.

Wernicke's Encephalopathy is characterised by the classic triad of confusion, abnormal movements of the eyes (ophthalmoplegia and nystagmus) and imbalance (ataxia).

Note that the presentation of only one of this triad is sufficient to raise the possibility of a diagnosis of Wernicke's. Do not wait for all three components of the triad before referral to hospital for prompt further investigation and management.

IF A HEAVY DRINKING INDIVIDUAL IS PRESENTING WITH CONFUSION, THIS IS POTENTIALLY A MEDICAL EMERGENCY - IF THE CONDITION IS NOT TREATED EFFECTIVELY AND EARLY, IT CAN LEAD TO PERMANENT BRAIN DAMAGE. TRANSFER TO HOSPITAL IMMEDIATELY.

AMPHETAMINES

AMPHETAMINES ARE CENTRAL NERVOUS SYSTEM STIMULANTS, WITH CRYSTAL METHAMPHETAMINE (ICE) BEING A SYNTHETIC STIMULANT DRUG — A MORE POTENT FORM OF THE DRUG AMPHETAMINE. THIS GROUP OF DRUGS GREATLY INCREASES THE SPEED OF SIGNALS BETWEEN THE BRAIN AND BODY.

TYPES OF AMPHETAMINES

THE DIFFERENT TYPES OF METHAMPHETAMINE ARE GENERALLY DISTINGUISHED BY THEIR APPEARANCE:

- Crystalline - crystal-like appearance (ice or crystal meth or methamphetamine)
- Salt/Powder form – Speed
- Putty like - Base

PRESCRIBED METHAMPHETAMINES INCLUDE:

- Dexamphetamine - a prescription medication used in the treatment of ADHD
- Methylphenidate (Concerta/Ritalin)
- Lisdexamfetamine (Vyvanse)

Note 1: Atomoxetine ("Strattera") is also used in the treatment of ADHD. It is not addictive because it does not increase the neurotransmitter levels in the reward pathway of the brain.³⁶

Note 2: MDMA (Methylene dioxy-methamphetamine) also called 'Ecstasy', is similar in structure and effect to amphetamines, but also acts as a hallucinogen.

EFFECTS OF AMPHETAMINES

SIGNS OF INTOXICATION:

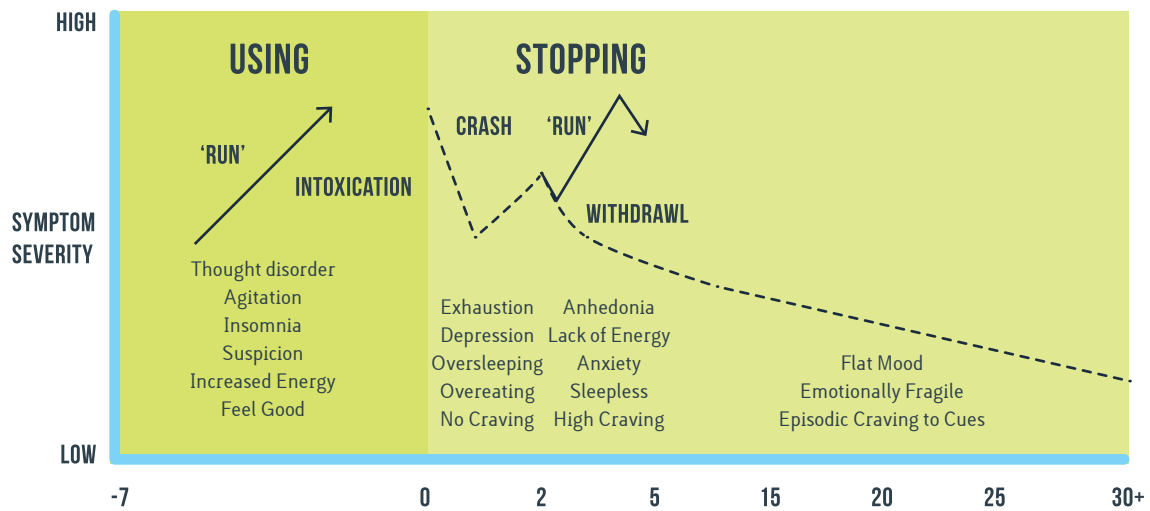
- Talkative
- Vague concerns
- Fidgety
- Stereotypical motor behaviour
- Repetitive speech
- Euphoria and exhilaration
- Enhanced self-confidence
- Disinhibition
- Tangential thinking
- Decreased appetite
- Scratching
- Twitching/ shaking
- Tremor
- Ambivalent
- Nervous tension
- Rocking
- Sniffing
- Tachycardia
- Hypertension
- Tachypnoea (fast breathing)
- Hyperthermia
- Mydriasis
- Dry mouth
- Nausea and vomiting
- Insomnia
- Confusion
- Aggression
- Paranoia
- Panic

SIGNS OF ACUTE TOXICITY:

- Sweating & hyperpyrexia
- Tremors & muscle twitching
- Restlessness & agitation
- Hypertension, tachycardia, arrhythmias
- Convulsions
- Paranoia, hallucinations, delusions, hyper-arousal, and bizarre, violent and erratic behaviours
- Severe headache (onset after using amphetamines should alert to the possibility of brain haemorrhage)
- CVA (Cocaine/other stimulant use should be considered in any young person presenting with a cerebral vascular accident)

36. The Reward Pathway is a neurological circuit in the brain which, in addiction, is strongly activated by drugs or other causes of addiction.

USING AND STOPPING AMPHETAMINES GRAPH ³⁷



ASSESSING SEVERITY OF (METH) AMPHETAMINE DEPENDENCE

HISTORY

Methamphetamine may be smoked, snorted or injected. Smoking and

See drug index for approximate prices [Appendix 3: Drug Index](#)

snorting can often progress to injecting as severity of amphetamine dependence increases. Estimating the precise dose

of amphetamine that people are using is difficult due to the variation in purity and in the way that it is measured.

PHYSICAL

Injection sites other than in the cubital fossa (area in front of elbow joint most

commonly accessed for drug injection) are usually signs of severe levels of dependence. For example, the neck, legs and the groin are areas that may

be accessed when the usual sites are blocked with scarring from prolonged injecting drug use.

MANAGEMENT OF (METH)AMPHETAMINE WITHDRAWAL

FEATURES OF WITHDRAWAL:

In first 2-3 days ('Crash')

- Exhaustion
- Increased sleep
- Depression

Following days or weeks

- Irritability & anxiety
- Cravings
- Mood swings
- Poor concentration
- Sleep disturbances
- Increased appetite
- Paranoid delusions and psychotic episodes

Signs of chronic use:

- Weight loss
- Memory impairment
- Poor concentration and attention
- Sleep disturbances
- Hallucinations and flashbacks
- Depression
- Panic attacks
- Acute psychotic episodes
- Resembling paranoid
- Schizophrenia
- Phenomena

SUPPORTIVE CARE

Information about what to expect

- Supportive counselling from the YSAS Nurse and other Allied Health workers
- Psychological support from carers in Home Based Withdrawal
- Education about drinking fluids and maintaining nutrition through withdrawal period

Refer to: [Appendix 6: Prescribing Options for Withdrawal](#)

[Appendix 7: Care Planning for Resilience.](#)

ENCOURAGING THE YOUNG PERSON TO COMPLETE A WEEKLY DIARY (APPENDIX 5) MAY ALSO ENABLE IDENTIFICATION OF ENTRENCHED HABITS THAT CAN BE ADDRESSED INSTEAD OF SUBSTANCE USE.

MEDICATIONS TO SUPPORT FOR (METH)AMPHETAMINE WITHDRAWAL

Most adolescents do not require medication for stimulant withdrawal. YSAS advocates the use of coping

strategies that address the anxiety and sleep disturbances. However, some adolescents may have severe symptoms

and require a short course of diazepam.

See [Appendix 6: Prescribing Options for Withdrawal](#)

In some cases quetiapine, (50mg daily PRN) may be given if there is severe agitation or aggression. In this context, quetiapine is being utilised 'off label' as quetiapine is only PBS approved for schizophrenia, acute mania and major

depressive disorder.³⁸ Hence, PBS subsidy could only occur if treating the above comorbidity, where the doses used are generally higher (400-800 mg + for schizophrenia, 300-600 mg for depression).

If large doses are required and/or symptoms are not settling, transfer to hospital for comprehensive assessment and management.

Note: There is at this stage little evidence-base for medications that will facilitate long-term abstinence.

38. MIMS. (2010). Quetiapine, retrieved July 2015 from <http://www.mims.com.au/health-news-evidence/2014/low-dose-quetiapine>
For more information on the use of quetiapine, the following sites may be helpful: <http://www.nps.org.au/publications/health-professional/health-news-evidence/2014/low-dose-quetiapine>
<http://www.ncbi.nlm.nih.gov/pubmed/18359967>
<http://www.australianprescriber.com/magazine/38/3/95/7>

CANNABIS

(INCLUDING SYNTHETIC CANNABIS)

CANNABIS IN SMALL DOSES IS A CENTRAL NERVOUS SYSTEM STIMULANT AND DEPRESSANT, AND IN HIGH DOSES IS MAINLY A DEPRESSANT.

The main active constituent in cannabis is Delta 9-tetra-hydrocannabinol (THC), which causes psychoactive

effects. THC is stored in the fat cells of the body and accumulates over time. Tolerance and dependence can occur

with prolonged, regular use, which may lead to withdrawal symptoms following cessation.

IT IS ESTIMATED THAT 10% OF CANNABIS USERS DEVELOP CANNABIS DEPENDENCE, WITH THREE QUARTERS OF THEM EXPERIENCING WITHDRAWAL SYMPTOMS ON CESSATION OF THE DRUG. MOST DEPENDENT USERS HAVE CONCURRENT DEPENDENCE ON TOBACCO, WHICH INCREASES THE HEALTH RISKS AND WORSENS OUTCOMES FOR CANNABIS TREATMENT³⁹

TYPES OF CANNABIS

MARIJUANA

Generally smoked in cigarette papers sometimes with tobacco or via bong.

HASHISH

The dried resin from the plants flower generally mixed with tobacco and smoked. Can be added into brownie or cookie recipes.

HASH OIL

Rarely used by adolescents. Generally the tip of a cigarette is dipped in the oil prior to smoking it. Some types of home made 'medicinal cannabis' are in the form of oil.

SYNTHETIC CANNABIS

Synthetic cannabis is, as the name implies, laboratory made active constituent of cannabis – THC or tetrahydrocannabinol- sprayed onto herbs to give the appearance of cannabis.

It is usually smoked in the same way as the plant, but may also be consumed as tea. It is, however, much stronger in its effects⁴⁰ and the withdrawal symptoms from synthetic cannabis appear to be much stronger as well.

Synthetic cannabis is often known as Kronic, K2, Synthetic, Marijuana, Northern Lights Skunk but can have other names as well.

EFFECTS OF CANNABIS

SIGNS OF INTOXICATION:

- Relaxation and or euphoria
- Sleepiness
- Hunger
- Feeling of well-being
- Perceptual distortions
- Impaired memory
- Impaired co-ordination
- Depersonalization
- Tachycardia
- Vasodilation/orthostatic hypotension
- Bronchodilation
- Muscle relaxant
- Anti-emetic
- Analgesia

ACUTE TOXICITY:

- Anxiety
- Confusion
- Panic attacks
- Persecutory delusions
- Visual hallucinations
- Short term memory and attention impairment
- Impairment of motor skills

39. Winstock, A.R., Ford, C., Witton, J. (2010) "Assessment & Management of Cannabis use disorders in primary care. BMJ 340: C157

40. Wells, DA "The new marijuana" Ann Pharmacother 2011; 45: 414-417

MANAGEMENT OF CANNABIS WITHDRAWAL

YSAS RECOMMENDS THAT YOUNG PEOPLE HAVE DEVELOPED SUPPORT STRATEGIES IN PLACE BEFORE COMMENCING CANNABIS WITHDRAWAL. THESE SUGGESTIONS MAY INCLUDE:

- Gradual reduction in amount of cannabis used before complete cessation
- Delays first use of cannabis until later in the day
- Relaxation, progressive muscular relaxation, distraction
- Good sleep practice ('hygiene'), including avoiding caffeine, which may exacerbate irritability, restlessness and insomnia
- Try to avoid the cues and triggers associated with cannabis use⁴¹
- Psychoeducation sessions for the user and family members on the nature, duration, and severity of withdrawal, to help with a better understanding of dependence and reduce likelihood of relapse

MOST ADOLESCENTS DO NOT REQUIRE MEDICATION ON CESSATION OF CANNABIS, RATHER COPING STRATEGIES AND EMOTIONAL REGULATION INFORMATION MAY SUFFICE.

See: [Appendix 7: Care Planning for Resilience](#)

CANNABIS IS USUALLY MIXED WITH TOBACCO (E.G. 'JOINTS') AND SYMPTOMS OF NICOTINE WITHDRAWAL MAY OCCUR IF CANNABIS USE STOPS WITHOUT CONCOMITANT INCREASE IN CIGARETTE CONSUMPTION.

SYMPTOMS OF CANNABIS CESSATION:

- Anxiety, restlessness & irritability
- Insomnia
- Lethargy
- Cravings
- Increased body temperature
- Tremors
- Headaches
- Mild depressive features
- Panic attacks
- Nightmares
- Anorexia
- Nausea and vomiting
- Sweating (especially night sweats)

SUPPORTIVE CARE

Information about what to expect

- Supportive counselling from the YSAS Nurse and other Allied Health workers
- Education about drinking fluids and maintaining nutrition through withdrawal period
- Psychological support from carers in Home Based Withdrawal

Refer to [Appendix 6: Prescribing Options for Withdrawal](#)

AS WITH OTHER DRUG WITHDRAWAL, THE YOUNG PERSON NEEDS TO WORK THROUGH PRACTICAL STRATEGIES TO ADDRESS THE TRIGGERS FOR SMOKING. STRATEGIES TO DEAL WITH STRESSFUL EVENTS MAY BE OF VALUE IN ADDRESSING SMOKING.

See [Appendix 7: Care Planning for Resilience](#).

ENCOURAGING THE YOUNG PERSON TO COMPLETE A WEEKLY DIARY ([APPENDIX 5](#)) MAY ALSO ENABLE IDENTIFICATION OF ENTRENCHED HABITS THAT CAN BE ADDRESSED INSTEAD OF SUBSTANCE USE.

MEDICATIONS TO SUPPORT FOR CANNABIS WITHDRAWAL

Some adolescents may require a short course of diazepam if there is severe agitation or aggression when other interventions are not effective enough. As there are risks

involved in introducing adolescents to benzodiazepines, caution must be used in prescribing them, even for a short time. Refer to section "[Benzodiazepines in acute withdrawal](#)"

and Medications To Support for Benzodiazepine Withdrawal. Refer to section "[Management of acute nicotine withdrawal](#)". Medications To Support for Nicotine Withdrawal

41. Winstock, A.R., Ford, C., Witton, J. (2010) "Assessment & Management of Cannabis use disorders in primary care. BMJ 340: C157

BENZODIAZEPINES

BENZODIAZEPINES ARE CENTRAL NERVOUS SYSTEM DEPRESSANT DRUGS THAT CAUSE A DOSE DEPENDENT EFFECT: AS EACH DOSE INCREASES THERE IS A PROGRESSION FROM SEDATION TO HYPNOSIS TO STUPOR.

Benzodiazepines cause respiratory depression, but this effect is minimal unless other central nervous system depressants are taken (e.g. alcohol and opioids). When alcohol or

opioids are used in conjunction with benzodiazepines, the depressant effects of each of the substances may be potentiated. This may result in respiratory depression that may be life-

threatening. Rarely do benzodiazepines produce a paradoxical reaction of disinhibited behaviour and violence.⁴²

NAME	DURATION OF ACTION	APPROX DOSE EQUIV TO 5MG DIAZEPAM	TRADE NAMES	TABLET STRENGTH	SCHEDULE
ALPRAZOLAM	Short	0.5-1.0mg	Alprax, Kalma, Xanax, Ralozam	0.25mg, 0.5mg, 1mg, 2mg	S8
BROMAZEPAM	Intermediate	3-6mg	Lexotan	3mg, 6mg	S4
CLOBAZAM	Long	10-15mg	Frisium	10mg	S4
CLONAZEPAM	Long	0.25-0.5mg	Rivotril, Paxam	0.5mg, 2mg	S4
DIAZEPAM	Long	5mg	Antenex, Ducene, Ranzepam, Valium, Valpam	2mg, 5mg	S4
FLUNITRAZEPAM	Long	1-2mg	Hypnodrom	1mg	S8
LORAZEPAM	Intermediate	0.5-1mg	Ativan	1mg, 2.5mg	S4
NITRAZEPAM	Long	5mg	Mogadon	5mg	S4
OXAZEPAM	Short	30mg	Serepax, Murelax	15mg, 30mg	S4
TEMAZEPAM	Short	10-20mg	Temaze, Normison	10mg	S4
TRIAZOLAM	Very Short	0.25mg	Halcion	0.125mg	S4
ZOLPIDEM	Very Short	10mg	Dormizol, Stildem, Stilnox, Zolpibell	10mg(6.25mg & 12.5mg Modified Release)	S4
ZOPICLONE	Very Short	7.5mg	Imovane, Imrest	7.5mg	S4

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MANAGEMENT OF BENZODIAZEPINE WITHDRAWAL

THE PATTERN OF BENZODIAZEPINE USE IN ADOLESCENTS IS USUALLY BINGE IN NATURE AND MAY NOT RESULT IN ANY OBVIOUS PHYSICAL WITHDRAWAL SYMPTOMS.

However, adolescents who use benzodiazepines on a regular basis for at least a month can develop tolerance to the sedative effect and can show symptoms of withdrawal if they abruptly reduce or cease benzodiazepine use. Benzodiazepines should therefore not be ceased abruptly, and a dose reduction regime is recommended.

Benzodiazepine withdrawal symptoms and signs vary between individuals according to duration and consistency of use, amount used, and type (short, medium or long acting) of benzodiazepine used.

The onset of benzodiazepine withdrawal syndrome usually begins

within one to two days of cessation of a short acting benzodiazepine, (e.g. Alprazolam, Oxazepam), peaking at 7-14 days then gradually abating. For long acting benzodiazepines, (e.g. Diazepam, Nitrazepam), symptoms usually begin around 2-7 days following their cessation and peak at around 20 days, abating after a few weeks.

WITHDRAWAL:

- Anxiety
- Sweating / tremor
- Headaches
- Insomnia / Sleep disturbance
- Hypertension
- Palpitations
- Headache
- Increased sensitivity to sound and/or light and/or other senses
- Muscular pain and stiffness
- Panic attacks
- Seizures
- Psychotic reactions

42. Mancuso, CE, Tanzi, MG, Gabay, M (2004) Pharmacotherapy. Sep; 24 (9) 1177-85.

43. [Benzodiazepine Equivalents](#) SA Government (August 2014)

SUPPORTIVE CARE

Information about what to expect

- Supportive counselling from the YSAS Nurse and other Allied Health workers
- Education about drinking fluids and maintaining nutrition through withdrawal period
- Psychological support from carers in Home Based Withdrawal

AS WITH OTHER DRUG WITHDRAWAL, THE YOUNG PERSON NEEDS TO WORK THROUGH PRACTICAL STRATEGIES TO ADDRESS THE TRIGGERS FOR BENZODIAZEPINES.

See [Appendix 7: Care Planning for Resilience](#).

ENCOURAGING THE YOUNG PERSON TO COMPLETE A WEEKLY DIARY [\(APPENDIX 5\)](#) MAY ALSO ENABLE IDENTIFICATION OF ENTRENCHED HABITS THAT CAN BE ADDRESSED INSTEAD OF SUBSTANCE USE.

MEDICATIONS TO SUPPORT FOR BENZODIAZEPINE WITHDRAWAL

THE FOLLOWING ARE RECOMMENDED DOSAGES BUT NEED TO BE CONSIDERED IN THE CONTEXT OF EACH INDIVIDUAL CASE.

For other symptoms, refer to: [Appendix 6: Prescribing Options for Withdrawal](#)

INDIVIDUALS AT HIGH RISK BENZODIAZEPINE WITHDRAWAL INCLUDE:⁴⁴

- High dose benzodiazepine consumption (more than 25mg daily for more than 4 weeks)
- Concurrent alcohol or other drug dependence
- Aberrant drug-related behaviours (eg multiple scripts from multiple doctors/'doctor shopping')
- Unstable psychiatric or medical conditions
- History of seizures
- Concurrent drug abuse or dependence
- Concurrent chaotic social setting

High risk benzodiazepine withdrawal is best managed by a specialist addiction service and most usually as an inpatient.

In many high risk cases, maintenance on a stable dose of benzodiazepines will be preferable to complete withdrawal

from benzodiazepines and expectation of abstinence but this is best determined with specialist addiction input.

44. Brett, J. Munrion, B 2015 Management of benzodiazepine misuse and dependence Australian Prescriber 38(5) 152-155

TOBACCO (NICOTINE)

A HIGH PERCENTAGE OF YOUNG PEOPLE USE NICOTINE IN CIGARETTES AND/OR COMBINE TOBACCO WITH CANNABIS. MOST YOUNG PEOPLE WHO USE NICOTINE BENEFIT FROM PSYCHOSOCIAL INTERVENTION BUT A MINORITY OF ADOLESCENT 'ADULT-TYPE' SMOKERS⁴⁵ WILL REQUIRE NICOTINE REPLACEMENT THERAPY (NRT) TO ASSIST THEM TO WITHDRAW FROM NICOTINE.

There are a number of reasons why effort should be made to address smoking in young people.

The vast majority of smokers acquire the habit in early adolescence and as a result, young smokers suffer impairment of lung function and lung growth. Young people who start early have a greater difficulty quitting, and may be more susceptible to disease in adulthood.⁴⁶ The health risks of long term smoking are well described and well documented. These include a higher risk of developing some types of cancers, lung disease, heart disease and circulatory complications. These health risks are the results of the inhaled cigarette containing a combination of

tar, nicotine, carbon monoxide and a number of other chemicals.

Individuals with behavioural difficulties, especially ADHD, are more likely to smoke cigarettes, and it appears that there is a genetic link between ADHD and nicotine addiction.⁴⁷ Smoking is also an important factor in the development of depression in young people.⁴⁸

A useful resource for young people to learn further information about the harms of smoking and tips for quitting is the '[What's in Cigarettes Fact Sheet](#)'. In the case of nicotine, Dessaix et al⁴⁹ suggest that tobacco excise, banning in cafes/restaurants/pubs, warnings

on packaging, penalties for selling to minors and plain packaging, amongst other initiatives, has led to a decrease in smoking. NSW data show the proportion of adolescents who currently smoking as 6.7% in 2014, down from 23.5% in 1996.

YSAS's 2014⁵⁰ survey showed 51.5% of clients had smoked cigarettes in the past month. Of the 1000 clients surveyed, 46% of these clients were not employed or in training, 58% were experiencing family relationship issues and 35% have a mental health diagnosis. The data suggests that this at risk client group exhibits a number of health risk factors.

EFFECTS OF NICOTINE

Nicotine, once inhaled, affects the body very quickly. Within seconds, nicotine reaches the brain releasing dopamine, a 'brain reward' chemical. It causes changes to the structure

and functioning of the brain, which leads to nicotine addiction. Nicotine also raises heart rate, blood pressure, releases hormones affecting the central nervous system, and constricts small

blood vessels under the skin.⁵¹ There is growing evidence that addiction to nicotine can develop very rapidly in young smokers.⁵²

MANAGEMENT OF NICOTINE WITHDRAWAL

It is the experience of YSAS that a number of young people seek to withdraw from one substance at a time and have not considered addressing their cigarette use. Similarly, in the context of cannabis use, many young people have not considered the potential of nicotine withdrawal which can worsen symptoms of cannabis withdrawal.

It is always good to take any opportunity to discuss this with the young person and raise his/her awareness and his/her motivation to stop smoking. It is helpful to work through the possibility of nicotine withdrawal occurring on abrupt cessation of cigarettes or on reduction of nicotine consumption when stopping cannabis. Discussing with the young person whether

he/she would prefer to gradually reduce cigarettes versus completely stop them can be helpful. Ideally complete cessation is recommended, especially in 'adult-type' nicotine dependent adolescent smokers. New laws in Victoria prohibiting smoking in withdrawal units ('detox' facilities) is also relevant to this discussion with the young person.

WITHDRAWAL SYMPTOMS

- Urge to smoke
- Depressed mood
- Sleep disturbances
- Irritability, frustration or anger
- Anxiety
- Difficulty concentrating
- Restlessness
- Decreased heart rate
- Increased appetite or weight gain
- Decreased adrenaline and cortisol
- Other cold symptoms such as sneezing, headache, earache, sore throat, deafness or feeling off-colour
- Mouth ulcer
- Bowel disturbance, constipation
- Drowsiness or fatigue
- Coughing

45. DiFranza, J.R. Savageau, J.A., Fletcher, K. O'Loughlin, J. Pbert, L., Ockene, J.K., McNeill, A.D., Hazelton, J., Friedman, K., Dussault, G., Wood, C. & Wellman, R.J. (2007) Symptoms of tobacco dependence after brief intermittent use: the Development and Assessment of Nicotine Dependence in Youth-2 study. *Arch Pediatr Adolesc Med.* 161(7) 7004-10

46. Stanton, A. & Grimshaw, G. (2013) Tobacco cessation intervention for young people. *The Cochrane Collaboration*

47. Thakur et al (2012) Family-based association of ADHD and genes increasing the risk for smoking behaviours *Arch Dis Child* 97(12):1027-1033

48. Boden et al (2010) Cigarette smoking and depression: tests of causal linkages using a longitudinal birth cohort *Br J Psychiatry* 196 (6):440-446

49. Dessaix, A., Moag, A., McKenzie, J. & Currow, D. (2016) Factors influencing reductions in smoking among Australian adolescents. *Public Health Research Practice.* 26(1)

50. Kutin, J., Bruun, A., Mitchell, P., Daley, K., & Best, D. 2014. Young people in Victorian youth alcohol and other drug services. Data and key findings. Results from the Statewide Youth Needs Census (SYNC). Technical Report March 2014. Youth Support + Advocacy Service: Melbourne, Australia.

51. <http://www.quit.org.au/downloads/resource/facts-evidence/whats-in-cigarettes-fact-sheet.pdf>

52. Karpinski, J.P. Timpe, E.M. & Lubsch L. (2010) Smoking Cessation Treatment for Adolescents. *Journal of Pediatric Pharmacology.* 15(4): 249-263.

SUPPORTIVE CARE

Information about what to expect

- Supportive counselling from the YSAS Nurse and other Allied Health workers
- Education about drinking fluids and maintaining nutrition through withdrawal period
- Psychological support from carers in Home Based Withdrawal

See [Appendix 6: Prescribing Options for Withdrawal](#)

As with other drug withdrawal, the young person needs to work through practical strategies to address the triggers for smoking. Strategies to deal with stressful events may be of value

in addressing smoking see [Appendix 7: Care Planning for Resilience](#). Encouraging the young person to complete a weekly diary ([Appendix 5: One Week Consumption Calendar](#))

may also enable identification of entrenched habits that can be addressed instead of substance use.

MEDICATIONS TO SUPPORT NICOTINE WITHDRAWAL

In YSAS's experience, the financial costs of pharmacological supports for nicotine withdrawal are a barrier to their use and the strong recommendation is for the development of a withdrawal/cessation plan to occur in conjunction with psychosocial strategies.

This is especially so until there is a solid evidence base for pharmacological treatment of nicotine withdrawal in

young people. Unlike in adults, there is little formal evidence that establishes the efficacy of nicotine replacement therapy (NRT) in adolescence as there have not been many large trials in young people. To date, no adverse effects with NRT were noted in a recent Cochrane review.

Nicotine patches, gum, lozenge, film which goes under the tongue or mouth spray all deliver small amounts

of nicotine. Nicotine Replacement Therapy (NRT) patches can be prescribed and are available on the PBS making them more affordable compared to other modes of delivery. Education concerning cost, placement, side effects, length of time patch is to remain on etc. need to be discussed with the individual in the informed consent process.

HOW TO TALK WITH A YOUNG PERSON ABOUT SMOKING CESSATION. AN EXAMPLE:

"There are patches, chewing gum and lozenges that release nicotine which can help you stop smoking. Chewing Gum- pack of 30, 2mg \$13. Lozenge - pack of 20 2mg \$20.

Patches pack of 7, \$30. The chewing gum or lozenge is a good way to start to try and give up." (January 2016 prices)

SMOKING WHILE USING THE PATCH FOR SMOKING CESSATION IS NOT ADVISABLE BUT HAS NOT BEEN SHOWN TO CAUSE SERIOUS ADVERSE EFFECTS. IT HAS BEEN SUGGESTED THAT THOSE WHO SMOKE WHILE ON THE NRT PATCH MAY SMOKE FEWER CIGARETTES.⁵³

Note: Nicotine Replacement Therapy is NOT advised for individuals who smoke less than ten cigarettes daily.

Zyban (bupropion hydrochloride) has been shown to reduce withdrawal symptoms and reduce cravings. It has been trialled to a limited extent in people under 18 years.

It should only be used if there is a compelling reason to do so, such as the young person identifies he/she is nicotine dependent and wants to cease, or the young person has an

underlying health problem exacerbated by smoking. Careful documentation of reasons for prescribing, as well as a second opinion are advisable in this situation.

Note: Bupropion may increase suicidal thinking and behavior, especially in young people with depression. Regular follow up is therefore recommended not only for assistance of smoking cessation but also to monitor mental health symptoms.⁵⁴

Chamfix (varenicline) binds with nicotinic receptors to reduce nicotine withdrawal symptoms. It has not been trialled in people under 18 years.

It should not be used as first line treatment unless there is a compelling reason to do so. Careful documentation of reasons for prescribing, as well as

a second opinion, is advisable in this situation.

Note: There have been some reports of neuropsychiatric symptoms as a side effect of varenicline, so monitoring for the emergence or exacerbation of symptoms is advisable.

53. Bittoun, R. "The treatment-resistant smoker" *Medicine Today* 2007;8(8):16-24

54. Karpinski, J.P. Timpe, E.M. & Lubsch L. (2010) Smoking Cessation Treatment for Adolescents. *Journal of Pediatric Pharmacology*. 15(4): 249-263.

OPIOIDS

OPIOIDS ARE POWERFUL ANALGESICS (PAINKILLERS) AND CENTRAL NERVOUS SYSTEM DEPRESSANTS THAT CAUSE DROWSINESS, RESPIRATORY DEPRESSION AND INHIBITE THE COUGHING AND GAG REFLEXES.

PROLONGED OPIOID USE (MONTHS TO YEARS) RESULTS IN TOLERANCE AND LOWERED PAIN THRESHOLD. THIS MAY RESULT IN PAIN BEING PERCEIVED AS MORE SEVERE, WHICH MAY BE INTERPRETED AS DRUG-SEEKING BEHAVIOUR RATHER THAN INADEQUATELY RELIEVED PAIN.

YOUNG PEOPLE MAY EXPERIENCE

WITHDRAWAL FROM OPIOIDS THROUGH:

1. Heroin use
2. Abuse of prescription opioids (Codeine, Oxycodone, etc.)
3. Long term use of prescriptions opioids (see table of opioid types below)

YSAS advocates a trauma informed approach when working with a young person who is using heroin as

his/her drug of choice. Schiff⁵⁵ (2010) found a correlation between childhood trauma and opioid dependence, and

recommends trauma support be concurrent with opioid withdrawal support.

TYPES OF OPIOIDS

- Heroin
- Morphine (Available forms: MS Contin, Kapanol, Ordine)
- Oxycodone (Available forms: Proladone, Oxycontin, Endone)
- Codeine (Available forms: Panadeine, Panadiene Forte, Codalgin Forte)
- Methadone (Available forms: methadone Syrup, Physeptone)
- Tramadol Hydrochloride (Available forms: Tramal, Zydol)
- Oxycodone (Available forms: Targin)
- Buprenorphine (Available forms: Subutex)
- Suboxone (Available forms: Buprenorphine + Naloxone, Oxycodone Buprenorphine)
- Pethidine

EFFECTS OF OPIOIDS

SIGNS OF OPIOID INTOXICATION:

- Euphoria
- Sedation
- Analgesia
- Constipation
- Itching and scratching
- Miosis (Pin point pupils)
- Bradycardia
- Hypotension
- Respiratory depression

SIGNS OF OPIOID OVERDOSE:

- Laboured and noisy breathing
- Hypothermia
- Bradycardia with weak pulse
- Miosis
- Cyanosis
- Decreased level of consciousness

ASSESSING SEVERITY OF OPIOID DEPENDENCE

HISTORY

Heroin may be smoked, snorted ('chasing the dragon') or injected. Smoking and snorting heroin can often progress to injecting as the severity

of opioid dependence increases. Estimating the precise dose of heroin that people are using is difficult due to the variation in purity and in the way it is measured.

'Low end' use usually refers to less than two injections/\$50 per day and 'high end' use usually refers to greater than four injections/\$100 per day.

PHYSICAL

Injection sites other than in the cubital fossa (area in front of elbow joint most

commonly accessed for drug injection) are usually signs of severe levels of dependence. For example, the neck, legs and groin are areas that may be

accessed when the usual sites are blocked with scarring from prolonged injecting drug use.

55. Schiff, M. Levit, S. and Cohen-Moreno, R. (2010) Childhood sexual abuse, post-traumatic stress disorder, and use of heroin among female clients in Israeli methadone maintenance programs (MMTPS). *Social Work in health care*. 49(9): 799-813.

MANAGEMENT OF OPIOID WITHDRAWAL

FEATURES OF OPIOID WITHDRAWAL:

- Hot and cold flushes - sweating
- Yawning, tremor
- Rhinorrhoea (runny nose, sniffing)
- Nausea and vomiting
- Anorexia
- Diarrhoea, abdominal cramps
- Muscle and joint aches,
- Anxiety/restlessness/insomnia
- Cravings
- Lethargy and weakness

SUPPORTIVE CARE

Information about what to expect

- Supportive counselling from the YSAS Nurse and other Allied Health workers
- Education about drinking fluids and maintaining nutrition through withdrawal period
- Psychological support from carers in Home Based Withdrawal

Refer to [Appendix 6: Prescribing Options for Withdrawal](#)

As with other drug withdrawal, the young person needs to work through

practical strategies to address the triggers for opioid use. Strategies to

deal with stressful events may be of value in addressing opioid use.

See [Appendix 7: Care Planning for Resilience](#).

ENCOURAGING THE YOUNG PERSON TO COMPLETE A WEEKLY DIARY [\(APPENDIX 5\)](#) MAY ALSO ENABLE IDENTIFICATION OF ENTRENCHED HABITS THAT CAN BE ADDRESSED INSTEAD OF SUBSTANCE USE.

MEDICATIONS TO SUPPORT FOR OPIOID DEPENDENCE

THERE ARE A NUMBER OF MEDICATION OPTIONS THAT CAN BE USED IN THE MANAGEMENT OF OPIATE DEPENDENCE:

1. Symptomatic management of withdrawal from opioids ([Appendix 6: Prescribing Options for Withdrawal](#))
2. Methadone or buprenorphine assisted opioid withdrawal – over seven days
3. Opioid substitution therapy⁵⁶ (methadone or buprenorphine) – longterm medication, called maintenance treatment for opioid dependence and may be more appropriate than withdrawal in some individuals
4. Opioid antagonist therapy (naltrexone)

Note: The choice of treatment needs to be made on a case-by-case basis.

BUPRENORPHINE OR METHADONE ASSISTED WITHDRAWAL

Buprenorphine or methadone may be used to assist withdrawal, which may be an appropriate treatment option for adolescents who have histories of opioid abuse but who are not currently dependent on opioids. Buprenorphine

is usually used in preference to methadone. It is important to explain to the young person that buprenorphine dosing should not start until at least 6 hours after the last heroin dose or 24-48 hours after the last methadone

or other longer acting opioid dose. A good guide to starting buprenorphine is when the young person is showing signs of opioid withdrawal. If dosed too early, precipitated withdrawal may occur.

⁵⁶ Opiate Substitution Therapy is sometimes referred to as OST; it is also called Opiate Replacement Therapy (ORT)

A RECOMMENDED REGIMEN FOR BUPRENORPHINE-ASSISTED WITHDRAWAL IS:

Adapted from Lintzeris (2006)

DAY	BUPRENORPHINE /NALOXONE	TOTAL DAILY DOSE
1	4mg at onset of withdrawal and additional 2-4mg evening dose if needed	4-8mg
2	4mg mane, additional 2 to 4mg evening dose if needed	4-8 mg
3	4mg mane, additional 2 to 4mg evening dose if needed	4-6 mg
4	2mg mane if needed; 2 mg evening if needed	0-4 mg
5	2mg if needed	0-2 mg
6 & 7	No dose	

Opiate Replacement Therapy (ORT) or Opiate Substitution Therapy (OST) is methadone or buprenorphine and requires the prescriber to confirm opioid dependence before applying for a permit for that young person from the state authority.

Medical practitioners need to have undergone pharmacotherapy training and be registered as “prescribers” to prescribe ORT. The decision to assess someone as suitable for ORT rests with the medical practitioner and his/her requirement to act as per the health regulations that they are governed by. Not all young people who have used opioids need to be commenced on ORT.

It is important to establish that the young person is indeed dependent on the opioid through detailed history and collateral history to confirm these details (where possible), physical examination findings and urine drug screen confirm the history.

Other important factors such as the duration of opioid abuse, the level of the young person’s neuroadaptation, and risk and protective factors in the young person’s life need to be taken into consideration when discussing with the young person how to use ORT. Buprenorphine may be preferred to methadone for the treatment of opioid addiction in adolescents because of

the relative ease of withdrawal from buprenorphine treatment.⁵⁷ Reasons for how the decision was ultimately made should be clearly documented.

It is important that young people commencing on methadone or buprenorphine are educated about the possible risks of toxicity and overdose, especially with methadone. The risk of overdose is highest in the first 14 days of treatment especially with methadone. This may be due to low tolerance to methadone or use of opioids ‘on top’ of the prescribed methadone, or it may be that the prescribed dose is too high from the outset or has been increased too rapidly. Use of other depressant medication also adds to the risk of overdose.⁵⁸

In general, methadone should not be commenced at a dose higher than 20-25mg (30mg maximum in cases of well established high level neuro-adaptation). Usually this dose is reserved for young people who are well known to the prescriber and have been frequently reviewed so there is a good understanding of the individual’s level of adaptation). It takes approximately three days to reach steady state.

Dose increases therefore should only be every third day, only 10mg at a time and not more than 30mg over the course of a week. Dose of around 60mg is usually

effective in retaining the individual in treatment and reducing heroin use.

WHERE A CLIENT HAS MISSED HIS/HER DOSE FOR THREE CONSECUTIVE DOSES, YSAS RECOMMENDS AN URGENT REVIEW BEFORE THE CLIENT RECEIVES A SUBSEQUENT DOSE. PHARMACIES SHOULD NOT DOSE CLIENT. “WHEN METHADONE DOSES ARE MISSED FOR 3 OR MORE DAYS, TOLERANCE TO OPIOIDS MAY BE REDUCED PLACING PATIENTS AT INCREASED RISK OF OVERDOSE WHEN METHADONE IS REINTRODUCED.”⁵⁹

OVERDOSE DUE TO REDUCED TOLERANCE TO OPIOIDS.

Following a period of abstinence, individuals who have been regular users of opioids (heroin, ORT or other prescribed opioids such as oxycodone etc.) will have reduced tolerance. Use of opioids in similar (or larger) dose as previously risks death by overdose.

This risk is an important conversation to have with the young person at any opportunity. Note: Take home naloxone packs as a harm reduction strategy have been developed to assist with this risk and will be available in 2016. These guidelines have been written to support

Community Based Prescribers and provide information to support workers in relation to common community based prescribing practices. Some young people present with complex scenarios and in these situations, consultation with an addiction medicine service is advisable.

57. Clinical Guidelines for the Use of Buprenorphine in the Treatment of Opioid Addiction, 2004.

58. Drugs and Poisons Regulation Group 2006, Policy for maintenance pharmacotherapy for opioid dependence, Drugs Policy and Services Branch, Victorian Government Department of Human Services, Melbourne, Victoria, Australia.

59. DOHA Clinical Guidelines and Procedures for the use of Methadone in the maintenance treatment of opioid dependence. 2003

HALLUCINOGENS

HALLUCINOGENS (ALSO KNOWN AS 'PSYCHEDELICS') CAN MAKE A PERSON SEE, HEAR, SMELL, FEEL OR TASTE THINGS THAT AREN'T REALLY THERE OR ARE DIFFERENT FROM HOW THEY ARE IN REALITY.

SOME PLANTS SUCH AS ‘MAGIC MUSHROOMS’ (PSILICYBIN) CAN CAUSE HALLUCINATIONS. HALLUCINOGENS SUCH AS LSD CAN ALSO BE MADE IN A LABORATORY. HALLUCINOGENS TEND TO BE OPPORTUNISTICALLY TAKEN BY YSAS CLIENTS RATHER THAN BEING THE DRUG OF CHOICE.

DIFFERENT HALLUCINOGENS:

- LSD (Lysergic acid diethylamide)** was first made in the 1930’s but gained notoriety in the 1960s as a psychedelic.

Presentation: white powder, blotting paper, liquid, tablet or capsule

Ingestion: LSD can be swallowed, sniffed, injected or smoked.
- Nbomes: (N-methoxy-benzyl)** are a series of drugs with hallucinogenic properties, also called New Psychoactive Substances (NPS) and sometimes called “N-bombs”.

They mimic LSD and are often sold as such despite that they are a different chemical to LSD. Some examples include 2C-I-NBOME and 25-I-NBOME. The latter is much stronger and is easier to overdose on.

In toxicity, this class of drugs cause acute behavioural disturbance (dizziness, agitation, confusion and/or medical complications; in severe cases this includes seizures, rhabdomyolysis (muscle breakdown) and acute kidney
- injury occur requiring hospital admission, sometimes to the ICU (intensive care unit).⁶⁰

Presentation : blotting paper (similar to LSD), white powder or pill.

Ingestion: usually taken under the tongue, held in the cheek, or snorted. Nbomes are inactive if swallowed.
- Magic mushrooms (Psilocybin mushrooms)**

Presentation: generally dried mushrooms or as powder/ capsules

Ingestion: mushrooms are often eaten fresh, cooked or brewed into a tea.

EFFECTS OF HALLUCINOGENS

Hallucinogens affect everyone differently and the mood/disposition of a person prior to consuming the drug can change the experience.

The effects of hallucinogens can last for 4 to 12 hours and can be different depending on which type of hallucinogen is used. Nbomes have

become more readily available in Australia and overseas in the past few years.

SIGNS OF HALLUCINOGEN INTOXICATION

- Euphoria
 - Auditory and/or visual hallucinations
 - Sweating and chills
 - Agitation
 - Confusion
- Poor concentration
 - Dizziness / blurred vision
 - Seizures
 - Tachycardia and/or tachypnea
 - Vomiting/Nausea
 - Numbness

MANAGEMENT OF HALLUCINOGEN WITHDRAWAL

Psychological withdrawal symptoms are more common than physical symptoms,

but as the hallucinogen group includes a range of different drugs, it is difficult

to be specific about withdrawal symptoms.

PEOPLE WITHDRAWING FROM HALLUCINOGENS MAY EXPERIENCE:

- Cravings
 - Fatigue
- Irritability
 - Reduced ability to experience pleasure

60. Isbister, G.K., Poklis, A., Poklis, J.L. & Grice, J. (2015) Beware of blotting paper hallucinogens: severe toxicity with NBOMes. MJA 203(6):266-7e.1

SUPPORTIVE CARE

Information about what to expect

- Supportive counselling from the YSAS Nurse and other Allied Health workers
- Education about drinking fluids and maintaining nutrition through withdrawal period
- Psychological support from carers in Home Based Withdrawal

Refer to [Appendix 6: Prescribing Options for Withdrawal](#)

As with other drug withdrawal, the young person needs to work through practical strategies to address the triggers for substance use. Strategies to deal with stressful events may be of value in addressing substance use.

See [Appendix 7: Care Planning for Resilience](#).

Encouraging the young person to complete a weekly diary (Appendix 5) may also enable identification of entrenched habits that can be addressed instead of substance use.

MEDICATIONS TO SUPPORT HALLUCINOGEN WITHDRAWAL:

There are no specific pharmacological treatments for hallucinogen withdrawal. Symptomatic treatment can be prescribed or administered as required.

OTHER STIMULANTS

STIMULANTS ARE SO NAMED BECAUSE THEY STIMULATE THE CENTRAL NERVOUS SYSTEM AND THEIR SUBSEQUENT PERIPHERAL SYMPATHOMIMETIC ACTION.

- **Khat**
is made from the leaves and buds of the Khat plant (*Catha edulis* Forsk).

Presentation: dark green leaves and bud from the shrub.

Ingestion: generally chewed when fresh and smoked/ chewed or brewed into a tea.
- **Mephedrone**
(4-methylmethcathinone) is a New Psychoactive Substance (NPS) in the range of drugs that have been designed to produce effects similar to those of established illicit drugs.

Presentation: white powder with a yellowish tinge; crystals; capsules/pills

Ingestion: generally sniffed/ snorted or swallowed.
- **Bath salts/synthetic cocaine**
are a group of new psychoactive chemicals that are increasingly being manufactured in Australia and sold (commonly in adult stores) as synthetic cocaine.

Presentation: pills

Ingestion: generally swallowed.

PRESCRIPTION STIMULANTS:

- **Phentermine (“Duromine”)** has similar actions to an amphetamine and is marketed as a diet pill. YSAS has observed minimal duromine use by the cohort from 2010 to 2015
- **Methylphenidate (“Concerta”, “Ritalin”)** is a stimulant that is used in the treatment of ADHD (Attention Deficit Hyperactivity Disorder)
- **Dexamphetamine** is also a stimulant that is used in the treatment of ADHD (Attention Deficit Hyperactivity Disorder)

EFFECTS OF STIMULANTS

STIMULANT EFFECTS:

- Hypertension
- Tachypnoea (fast breathing)
- Hyperthermia
- Mydriasis
- Dry mouth
- Nausea and vomiting
- Insomnia
- Confusion
- Aggression
- Paranoia
- Panic

SIGNS OF INTOXICATION:

- Talkative
- Vague concerns
- Fidgety
- Scratching
- Twitching/shaking
- Tremor
- Ambivalent
- Rocking
- Sniffing
- Stereotypical motor behavior
- Repetitive speech
- Euphoria and exhilaration
- Enhanced self confidence
- Disinhibition
- Tachycardia

SIGNS OF ACUTE TOXICITY:

- Sweating and hyperpyrexia (high fever)
- Tremors and muscle twitching
- Restlessness and agitation
- Hypertension
- Tachycardia
- Arrhythmias (abnormal heart rhythm)
- AMI (heart attack)
- Paranoia
- Hallucinations
- Delusions
- Hyper-arousal
- Erratic behaviours
- Severe headache;
- Seizure
- CVA (stroke)

SIGNS OF CHRONIC USE:

- Weight loss
- Memory impairment
- Poor concentration
- Sleep disturbances
- Hallucinations and flashbacks
- Depression
- Panic attacks
- Acute psychotic episodes resembling paranoid schizophrenia

MANAGEMENT OF STIMULANT WITHDRAWAL

FEATURES OF STIMULANT WITHDRAWAL

Initial 2-3 days ('Crash'):

- Exhaustion
- Increased sleep
- Depression

Subsequent 4 to 21 days :

- Irritability
- Anxiety
- Increased appetite
- Cravings
- Mood swings
- Poor concentration
- Depression
- Sleep disturbances
- Paranoid delusions
- Psychotic phenomena

SUPPORTIVE CARE

Information about what to expect

- Supportive counselling from the Allied Health Workers, Youth Workers
- Education about drinking fluids and maintaining nutrition through withdrawal period
- Psychological support from carers in Home Based Withdrawal

Refer to [Appendix 7: Care Planning for Resilience](#)

MEDICATIONS TO SUPPORT FOR STIMULANT WITHDRAWAL

SYMPTOMATIC TREATMENT AS REQUIRED

Refer to [Appendix 6: Prescribing Options for Withdrawal](#)

STIMULANT-INDUCED PSYCHOSIS

It is advisable to assess and monitor adolescents for any signs of drug-induced psychotic phenomena, which can occur in susceptible adolescents following stimulant use. Unless very

mild, or unless there is already a psychosis management and monitoring plan in place, individuals with stimulant induced psychosis should be referred to the regional mental

health service's Psychiatric Triage for urgent assessment, which may result in CAT Team assessment or necessitate transfer to an Emergency Department.

MANAGEMENT OF MILD STIMULANT-INDUCED PSYCHOSIS

The treatment of young people with stimulant-induced behavioural disturbance or psychosis may not require any medication, depending on the severity. Stimulant-induced psychosis is often of short duration

and resolves with an extended period of abstinence from stimulant and other substance use. If dampening of hyperarousal is required, it should be titrated to reducing agitation that is distressing to the person or placing

the person or others at immediate risk, or rouseable sleep. The aim of is to minimise disturbing symptoms and dangerous behaviour, and to facilitate assessment and management.

MODERATELY AROUSED

A YOUNG PERSON IS MODERATELY AROUSED WHEN RESTLESS, AGITATED, VOCAL, UNREASONABLE, HOSTILE AND UNCO-OPERATIVE. VITAL SIGNS ARE USUALLY RAISED. TO SUPPORT CLIENTS WHO ARE MODERATELY AROUSED, THE FOLLOWING MEASURES MAY BE TAKEN:

- Diazepam 10-20mg orally initially, if cooperative and adherent.
- Diazepam to the total of 20-30mg can be given in divided doses depending on the individual; assessment needs to be on a case-by-case basis (eg benzodiazepine naïve versus benzodiazepine tolerant; other medications to reduce hyperarousal)
- Call regional Mental Health Service's Psychiatric Triage/ CAT Team for support and management if oral medication is refused, or behaviour escalates with increased distress and/or immediate risk to self or others (eg suicidal, homicidal thoughts, increasing hallucinations etc.).

Young people requiring interventions, including medication, to dampen hyperarousal which requires constant observation are not suitable for youth residential detoxification environments.

It is advisable to assess and to monitor adolescents for any signs of drug-induced psychotic phenomena, which can occur in susceptible adolescents following stimulant use.

Unless very mild, or unless there is already a psychosis management and monitoring plan in place, individuals with stimulant induced psychosis should be transferred to hospital.

SEROTONIN TOXICITY

STIMULANTS HAVE THE POTENTIAL TO CAUSE SEROTONIN TOXICITY, PARTICULARLY IF TAKEN IN COMBINATION WITH ANTIDEPRESSANTS OR ANTIPSYCHOTICS. SEROTONIN TOXICITY IS RELATIVELY UNCOMMON AND MAY BE A MILD, SELF-LIMITING CONDITION OR POTENTIALLY FATAL.

FEATURES OF SEROTONIN TOXICITY:

- Tachycardia
- Hypertension
- Blurred Vision
- Hyperthermia
- Shivering
- Diarrhoea
- Tremor
- Bladder/bowel dysfunction
- Headache
- Sweating
- Dizziness
- Muscle spasm/rigidity
- Anxiety
- Agitation
- Confusion
- Hypomania
- Nasal Congestion
- Convulsions
- Coma

INHALANTS/ VOLATILE SUBSTANCES

VOLATILE SUBSTANCES INCLUDE A RANGE OF PRODUCTS TYPICALLY USED BY ADOLESCENTS TO PRODUCE THE EFFECTS OF INTOXICATION. THEY ACT AS A DEPRESSANT ON THE CENTRAL NERVOUS SYSTEM.

TYPES OF INHALANTS/VOLATILE SUBSTANCES:

- Adhesives
- Aerosols
- Cleaning agents
- Solvents and gases
- Petrol

EFFECTS OF INHALANTS/VOLATILE SUBSTANCES**SIGNS OF INTOXICATION:**

- Excitement and euphoria
- Disinhibition
- Drowsiness
- Halitosis
- Nausea and vomiting
- Flu-like symptoms
- Epistaxis
- Disorientation
- Lack of co-ordination

LONG-TERM EFFECTS:

- Tremors
- Weight loss
- Lethargy
- Increased thirst
- Anaemia
- Gastritis and colitis
- Subconjunctival haemorrhage
- Damage to the nervous system
- Damage to liver and kidneys
- Cognitive impairment
- Aggression
- Depression
- Paranoia

ACUTE TOXICITY:

- Laryngeal spasm
- Stupor
- Coma
- Cardiac arrhythmias
- Convulsions

FEATURES OF VOLATILE SUBSTANCE WITHDRAWAL:

Usually mild, but can be severe with protracted heavy use

- Anxiety
- Depression
- Anorexia
- Nausea and vomiting
- Irritability
- Aggression
- Dizziness
- Tremors
- Headaches

SUPPORTIVE CARE

Information about what to expect

- Supportive counselling from the YSAS Nurse and other Allied Health workers
- Education about drinking fluids and maintaining nutrition through withdrawal period
- Psychological support from carers in Home Based Withdrawal

Refer to [Appendix 6: Prescribing Options for Withdrawal](#)

As with other drug withdrawal, the young person needs to work through

practical strategies to address the triggers for substance use. Strategies

to deal with stressful events may be of value in addressing substance use.

See [Appendix 7: Care Planning for Resilience](#).

Encouraging the young person to complete a weekly diary ([Appendix 5](#)) may also enable identification of entrenched habits that can be addressed instead of substance use.

MEDICATIONS TO SUPPORT WITHDRAWAL FROM INHALANTS/VOLATILE SUBSTANCES

While there is no evidence of a physical withdrawal syndrome associated with the cessation of inhalant use, anecdotally we find that some adolescents will experience some minor physical symptoms in the first few days following cessation of use.

Most adolescents do not require medication for inhalant withdrawal. YSAS advocates the use of coping strategies that address anxiety and sleep disturbance.

Nutrition and hydration should also be addressed. Some adolescents may require a short course of diazepam if there is severe agitation or aggression.⁶¹

Refer to: [Appendix 6: Prescribing Options for Withdrawal](#)

61. National Health and Medical Research Council. Consensus-based clinical practice guideline for the management of volatile substance use in Australia. Melbourne: National Health and Medical Research Council; 2011.

REFERENCES

- American Psychiatric Association 2013, Diagnostic and statistical manual of mental disorders (DSM-5), 5th Edition, Arlington, VA, USA.
- Baker, A., Lee, N.K. & Jenner, L. (Eds) (2004). Models of intervention and care for psychostimulant users., 2nd Ed. National Drug Strategy Monograph Series No. 51. Canberra. Australian Government Department of Health and Ageing.
- Benzodiazepine equivalents (August 2014) accessed 1/12/2015 <https://www.sahealth.sa.gov.au/wps/wcm/connect/83838b-80407711959274ba222b2948cf/Benzodiazepine+equivalents-DAS-SA-August2014.pdf?MOD=AJPERES&CACHEID=83838b-80407711959274ba222b2948cf>
- Boys, A., Marsden, J. and Strang J. (2001) Understanding reasons for drug use amongst young people: a functional perspective. *Health Educ. Res.* (2001) 16 (4):457-469.
- Center for Substance Abuse Treatment. (2004) Clinical Guidelines for the Use of Buprenorphine in the Treatment of Opioid Addiction. Treatment Improvement Protocol (TIP) Series 40. DHHS Publication No. (SMA) 04-3939. Rockville, MD: Substance Abuse and Mental Health Services Administration.
- Drugs and Poisons Regulation Group 2006, Policy for maintenance pharmacotherapy for opioid dependence, Drugs Policy and Services Branch, Victorian Government Department of Human Services, Melbourne, Victoria, Australia.
- Frank, C. (2008). Recognition and treatment of serotonin syndrome. *Canadian Family Physician*, 54(7), 988-992.
- Frei, M., Berends, L., Kenny, P., Swan A., Jenner, L., Hunter, B., & Mugavin, J. (2012). Alcohol and Other Drug Withdrawal: Practice Guidelines, 2nd ed. Fitzroy, Victoria: Turning Point Alcohol and Drug Centre.
- Geidd, J., Blumenthal, J., Jeffries, N., Castilanos, F., Liu, H., Zijdenbos, A., Paus, T & Rapoport, J (1999) 'Brain development during childhood and adolescence: A longitudinal MRI study. *Nature Neuroscience*, 2:861-863.
- Hart, C.L. (2005). Increasing treatment options for cannabis dependence: A review of potential pharmacotherapies. *Drug and Alcohol Dependence*. 80: 147-159.
- <http://www.quit.org.au/downloads/resource/facts-evidence/whats-in-cigarettes-fact-sheet.pdf>
- Ingersoll GM. (1989) Adolescence. 2nd ed. Englewood Cliffs, NJ: Prentice-Hall
- Jenner, L. & Lee, N. (2008) Treatment Approaches for Users of Methamphetamine: A Practical Guide for Frontline Workers. Australian Government Department of Health and Ageing, Canberra
- Karanges, E.A., Stephenson, C.P. & McGregor, I.S. (2014) Longitudinal trends in the dispensing of psychotropic medications in Australia from 2009-2012: focus on children, adolescents and prescriber speciality. *Australia and New Zealand Journal of Psychiatry*. Oct; 48(10) 917-31
- Kovacic P (2005) 'Unifying mechanism for addiction and toxicity of abused drugs with application to dopamine and glutamate mediators: electron transfer and reactive oxygen species. *Medical Hypotheses*. 65 (1) 90-96.
- Kutin, J., Bruun, A., Mitchell, P., Daley, K., & Best, D. (2014) Young people in Victorian youth alcohol and other drug services. Data and key findings. Results from the Statewide Youth Needs Census (SYNC). Technical Report March 2014. Youth Support + Advocacy Service: Melbourne, Australia.
- Lintzeris N, Clark N, Winstock A, Dunlop A, Muhleisen P, Gowing L, Ali R, Ritter A, Bell J, Quigley A, Mattick RP, Monheit B & White J (2006). National clinical guidelines and procedures for the use of buprenorphine in the treatment of opioid dependence. Commonwealth Department of Health and Ageing, Canberra, ACT, Australia.
- Lubman, D I, Yucel, M & Hall, W D (2007) 'Substance use and the adolescent brain: A toxic combination?', *Journal of Psychopharmacology*. 21(8) p.792.
- Marshall, M. P., Friedman, M. S., Stall, R., King, K. M., Miles, J., Gold, M. A., Morse, J. Q. (2008). Sexual orientation and adolescent substance use: a meta-analysis and methodological review. *Addiction* 103(4), 546-556
- Maurer HH, Kraemer T, Springer D, Staack RF & Roland F (2004) 'Chemistry, pharmacology, toxicology, and hepatic metabolism of designer drugs of the amphetamine (Ecstasy), piperazine, and pyrrolidinophenone types: a synopsis. *Therapeutic Drug Monitoring*. 26.(2)127-131.
- McRee D 2003, 'Protecting against cocaine, heroin, and sarin gas. *Chemistry & Biology*, (editorial), 10(4)295-297.
- Mitcheson, L; Winstock, A.R (2012) New recreational drugs and the primary care approach to patients who use them. *British Medical Journal* 344:e288
- National Health and Medical Research Council. (2011) Consensus-based clinical practice guideline for the management of volatile substance use in Australia. Melbourne: National Health and Medical Research Council.
- Nicholls, L., Bragaw, L. & Ruetsch, C. (2010) Opioid Dependence Treatment Guidelines. *Journal of Managed Care Pharmacy*. Feb. 10(1-b) S14-S21
- NSW Drug and Alcohol Withdrawal Clinical Practice Guidelines. (2008) Mental Health and Drug & Alcohol Office, NSW Department of Health. July 2008
- Olfson, M., Blanco, C., Liu, L., Moreno, C. and Laje, G. (2006) National Trends in the Outpatient Treatment of Children and Adolescents With Antipsychotic Drugs. *Archives of General Psychiatry*. 63(6) 679-685
- Parrott AC (2001) 'Human psychopharmacology of ecstasy (MDMA): a review of 15 years of empirical research. *Human Psychopharmacology*. 16 (8)557-577.
- Parrott AC. (2002) Recreational Ecstasy/MDMA, the serotonin syndrome, and serotonergic neurotoxicity. *Pharmacology, Biochemistry and Behaviour*. 71(4):837-44. Review.
- Queensland Alcohol and Drug Withdrawal Clinical Practice Guidelines. August 2012. Queensland Health.
- Schiff, M. Levit, S. and Cohen-Moreno, R. (2010) Childhood sexual abuse, post-traumatic stress disorder, and use of heroin among female clients in Israeli methadone maintenance programs (MMTPS). *Social Work in health care*. 49(9): 799-813.
- Squeglia, L. M., Jacobus, J., & Tapert, S. F. (2009). The Influence of Substance Use on Adolescent Brain Development. *Clinical EEG and Neuroscience : Official Journal of the EEG and Clinical Neuroscience Society (ENCS)*, 40(1), 31-38.
- Stallerm J.A, Wade, M.J. and Baker, M. (2005) Current Prescribing Patterns in Outpatient Child and Adolescent Psychiatric Practice in Central New York. *Journal of Child and Adolescent Psychopharmacology*. 15(1). 57-61.
- State Dual Diagnosis Planning Group (2006) Clinical guidelines: Management of acute amphetamine related problems. Drug and Alcohol Office, Government Department of Health, Western Australia, Australia.
- Stewart, D.G. Brown, S.A. (1995) Withdrawal and dependency symptoms among adolescent alcohol and drug abusers. *Addiction*. 90(5):627-35.
- Toumbourou JW & Gregg M E (2001) 'Working with families to promote healthy adolescent development'. *Family Matters*. 59: 54-60
- Winstock, A.R., Ford, C., Witton, J. (2010) "Assessment & Management of Cannabis use disorders in primary care. *BMJ* 340: C157

APPENDICES

APPENDIX 1: DSMV CLASSIFICATION CHART

X= The category is recognised in the DSMV

I= the specifier “with onset during intoxication” may be noted for this category

W = the specifier “with onset during withdrawal” may be noted for this category

I/W = either “with onset during intoxication” or “with onset during withdrawal” may be noted for the category.

P = the disorder is persisting

* Also hallucinogen persisting perception disorder

* Includes amphetamine type substances, cocaine, and other or unspecified stimulants

	PSYCHOTIC DISORDERS	BIPOLAR DISORDERS	DEPRESSIVE DISORDERS	ANXIETY DISORDERS	OBSESSIVE COMPULSIVE & RELATED DISORDERS	SLEEP DISORDERS	SEXUAL DYSFUNCTIONS	DELIRIUM	NEUROCOGNITIVE	SUBSTANCE USE	SUBSTANCE INTOXICATION	SUBSTANCE WITHDRAWAL
ALCOHOL	I/W	I/W	I/W	I/W				I/W	I/W/P	X	X	X
CAFFIENE				I		I/W					X	X
CANNABIS	I			I		I/W		I		X	X	X
HALLUCINOGENS									I		X	
PHENCYCLIDINE	I	I	I	I				I		X		
OTHER HALLUCINOGENS	I*	I	I	I				I	I	X	X	
INHALANTS	I		I	I				I	I/P	X	X	
OPIOIDS			I/W	W		I/W	I/W	I/W		X	X	X
SEDATIVES												
HYPNOTICS OR												
ANXIOLYTICS	I/W	I/W	I/W	W		I/W	I/W	I/W	I/W/P	X	X	X
STIMULANTS	I	I/W	I/W	I/W	I/W	I/W	I	I		X	X	X
TOBACCO						W				X		X
OTHER												
(OR UNKNOWN)	I/W	I/W	I/W	I/W	I/W	I/W	I/W	I/W	I/W/P	X	X	X

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APPENDIX 2: QUICK REFERENCE GUIDE – RISK OF WITHDRAWAL

(Appendix 2 has been developed for the YSAS 2016 Adolescent Withdrawal Guidelines)

	ONCE OFF USAGE	USED IN LAST MONTH	USED AT LEAST ONCE IN LAST WEEK	USED REGULARLY OVER LAST MONTH
ALCOHOL	No risk	Low risk	Low risk	High risk. Undertake AWS –consider pharmacotherapy support
CANNABIS	No risk	Low risk	Low risk	High risk
BENZODIAZEPINES	No risk	Low risk	Low risk	High risk
HALLUCINOGENS PHENCYCLIDINE	No risk	Low risk	Low risk	High risk
OTHER HALLUCINOGENS	No risk	Low risk	Low risk	High risk
INHALANTS	No risk	Low risk	Low risk	High risk
OPIOIDS	No risk	Low risk	Low risk	High risk. Undertake withdrawal assessment. Consider Pharmacotherapy support
SEDATIVES HYPNOTICS OR ANXIOLYTICS	No risk	Low risk	Low risk	High risk. Undertake assessment for withdrawal. Consider Pharmacotherapy support
STIMULANTS	No risk	Low risk	Low risk	High risk
TOBACCO	No risk	Low risk	Low risk	High risk
OTHER (OR UNKNOWN)	No risk	Low risk	Low risk	High risk

QUICK REFERENCE GUIDE KEY

High Risk of potential fatal physical withdrawal symptoms	Admission to youth friendly medical unit to support withdrawal
High risk of physiological symptoms, but low risk of physical withdrawal	YSAS recommends youth residential unit admission
Physiological symptoms but low risk of life threatening physical symptoms	Recommend referral to youth AOD service or contact through YoDAA
Low risk of life threatening withdrawal symptoms	Would benefit from referral to community AOD agency or accessing YoDAA

APPENDIX 3: DRUG INDEX⁶³

DRUG	CLASS	STREET NAME	STREET PRICE AS AT 2015
ALCOHOL	Depressant		N/A
BENZODIAZEPINES	Benzodiazepines	Benzos, Tranx, Sleepers, Valliees, Valium, Seeres, Serapax, Xanax, Xanees/Zanees, Sleepers, Alprazolam, Pills	Depends on type and mg
HEROIN	Opioid	H, Horse, Smack, Brown Sugar, White China, China White, Gear, Chasing, Chasing The Dragon	\$50 a cap, \$400 per gram
OXYCODONE/OXYCONTIN	Opioid	Oxy, Pills, Hillbilly Heroin	\$20 for 40mg, \$40 for 80mg
BUPRENORPHINE	Opioid	Bupe, Subbies	Suboxone \$10 for 2mg
GHB (GAMMA-HYDROXYBUTANE)	Depressant	Grievous Bodily Harm, Juice, G	\$25 a vial (5ml)
CANNABIS/MARIJUANA	Depressant	Choof, Marijuana, Mary Jane, Joint, Bong, Cone, Gunja, Weed, Green, Hydro, Bush	\$25 bush/hydro per gram
MAGIC MUSHROOMS	Hallucinogenic	Shrooms, Mushies, Blue Meanies, Golden Tops, Liberty Caps.	\$10 a gram
METHAMPHETAMINE BASE	Amphetamine	Meth, Ice, Shard, Crystal	Approx. \$50 a point (0.1g) \$350 per gram
ICE (METHAMPHETAMINE)	Amphetamine	Meth, Ice, Shard, Crystal	\$50-\$100 a point \$400 a gram
COCAINE	Amphetamine	Snow, Whiz, Nose Candy	\$100 a point \$400 a gram
ECSTASY MDMA	Amphetamine	E, Pills, MDMA, Eckie	\$25 a tab
LSD	Amphetamine	Acid, Trips, Tabs, Microdots, Dots	\$30-\$40
KHAT	Stimulant Synthetics	Qat, Kat or Chat	Varies
MEPHADRONE	Stimulant	Meph, Meow, Meow-Meow, M-Cat, Plant Food, Drone, Bubbles, Kitty Cat.	\$30 a gram
SYNTHETIC CANNABIS	Depressant	Known By Various Product Names Such As K2, Spice, Potpourri, Chronic, Purple Ha	\$30 an ounce

63. Modified in 2015 from original source: Stafford, J. and Burns, L. (2012) Australian Drug Trends 2011: Findings from the illicit drug reporting system (IDRS) Australian Drug Trend Series No.73 Sydney: National Drug and Alcohol Research Centre, University of New South Wales.

APPENDIX 4: ADOLESCENT RESOURCES

	MEDICAL	YOUTH WORK
ACT	Canberra Hospital AOD (02) 6207 9977	Youth Alcohol and Drug Service (YDAP) (02) 6207 9977
NSW	Adolescent Medicine Westmead (02) 9845 2446	Ted Noffs 1800 151 045
NT	Darwin: ADS 8922 8399 Alice Springs: ADSCA: 8951 7580	
QLD	ADAWS (07) 3163 8400	Dovetail (07) 3837 5621
SA	DASSA (08) 8130 7500	Streatlink (08) 8202 5950
TAS	Alcohol and Drug Services: 1800 811 994	The Link – Hobart (03) 6231 2927
VIC	St Vincent's Addiction Medicine (03) 9288 2627	YSAS 1800 458 685 (24hrs)
WA	ADS 1800 198 024	Swan City Youth Services (08) 9274 3488

APPENDIX 5: ONE WEEK CONSUMPTION CALENDAR

DRUG TYPE, AMOUNT AND FREQUENCY	SUN	MON	TUES	WED	THURS	FRI	SAT
Alcohol							
Amphetamines							
Benzodiazepines							
Cannabis							
Hallucinogens							
ICE							
Opioids							
Volatiles							
Tobacco							
NSAIDs							
<p>Were any particular triggers or habits noted that lead to increase usage on a particular day?</p> <p>Was there a regular time/place that substances were used?</p> <p>Was usage more or less frequent with certain friendship groups?</p> <p>Was the type of use more or less frequent depending on finances?</p>							

APPENDIX 6: PRESCRIBING OPTIONS FOR WITHDRAWAL

Symptomatic Treatment for clients experiencing withdrawal^{64, 65}

SYMPTOM/INDICATION	MEDICATION	ACTION	DOSE/FREQUENCY	ADVERSE EFFECTS
Abdominal Cramps	Hyoscine Butylbromide	Antispasmodic	10-20mgs q.i.d. as required	Dry mouth, sweating, dry skin
Nausea & Vomiting	Metoclopramide	Increased GIT throughput	10mgs t.d.s. oral as required (review at 4 weeks)	Movement disorder,
Diarrhoea	Atropine Sulphate/ Diphenoxylate Hydrochloride	Slows GIT	25mcgs/2.5mgs 2 tablets q.i.d. initially, then reduce	Drowsiness, headaches, nausea
Headaches	Paracetamol	Analgesic and antipyretic effects	500-1000mgs 6 hourly as required	
Nutritional Support.	Thiamine Multivitamin	Vitamin supplement Vitamin supplement	100mg daily 1 daily	
Sleep	Agomelatine	Melatonergic antidepressant	25mg Nocte (review at 14 days)	Sweating, nausea, abdominal pain
Anxiety and Agitation associated with withdrawal	Diazepam	Benzodiazepine.	Day 1& 2 - 2.5 mg qid Day 3 - 2.5 mg tds Day 4 - 2.5 mg bd Day 5 - 2.5 mg nocte (review client at day 5)	Sleepiness, coordination, respiratory depression,
High Risk Benzodiazepine or Alcohol Withdrawal	Diazepam (this should be commenced in a youth withdrawal unit)			Sleepiness, coordination, respiratory depression
Opioid Withdrawal	Buprenorphine / Nalxone (suboxone)		4-8mg sublingual daily	Headache constipation
Opioid Withdrawal	Methadone		20mg -30mg daily	Constipation, respiratory depression, nausea
Opioid Withdrawal	Clonidine		0.1-0.2mg orally every 6hours	Bradycardia, Hypotension, Dry Mouth, Drowsiness

64. Mitcheson, L; Winstock, A.R (2012)'New recreational drugs and the primary care approach to patients who use them'. British Medical Journal 344:e288

65. Modified from Opioid Dependence Treatment Guidelines 2010

APPENDIX 7: CARE PLANNING FOR RESILIENCE

CARE PLAN⁶⁶

- Advise gradual reduction in amount before cessation
- Suggest that the young person delays first use till later in the day
- Advise the young person on good sleep hygiene, including avoidance of caffeine, which may exacerbate irritability, restlessness, and insomnia
- Suggest relaxation, progressive muscular relaxation, distraction
- Suggest psychoeducation sessions for the user and family members on the nature, duration, and severity of withdrawal, to help with a better understanding of dependence and reduce likelihood of relapse
- Advise the young person to avoid the cues and triggers associated with use
- Prescribe short term analgesia and sedation for withdrawal symptoms if required. If irritability and restlessness are marked, consider prescribing very low dose diazepam for three to four days

DISTURBED SLEEP

- Reduce coffee, tea, cola and energy drinks during the day and have none after 2 pm
- Eat 3 meals a day and avoid heavy, spicy meals late at night
- Avoid napping during the day and keep to regular bed and wake times
- Exercise regularly (in the day, not after 6 pm)
- Use relaxation techniques
- Avoid doing things (i.e. tough phone calls) that might upset you before going to sleep
- Have a bath in the evening

SWEATING/ HOT AND COLD FLUSHES

- Have regular showers or baths

MUSCLE CRAMPS AND ACHES

- Have a bath
- Use a heat rub/ wheat bag
- Do gentle exercise e.g. walking
- Massage

POOR APPETITE

- Eat small meals and snack often
- Avoid heavy, greasy, sweet or rich foods
- Drink 6- 8 glasses of water a day
- Try a nutritional supplement drink
- Multivitamins may be helpful if the young person has not been eating well for some weeks

CONSTIPATION/ DIARRHOEA

- Drink plenty of fluids - 6 - 8 glasses of water a day
- Eat regular meals
- A high fibre diet
- For severe constipation eat fresh fruit, prunes or kiwifruit

NAUSEA/ VOMITING

- Eat small meals and snacks often
- Drink plenty of water
- If vomiting, stop eating solid food and try small sips of liquid, or sucking an ice cube. Try a small amount of food once you have kept fluids down for a few hours
- Rehydration/sports/isotonic drinks such as 'Powerade'
- Avoid citrus and caffeine on an empty stomach
- If vomiting persists please see a GP

ANXIETY/RESTLESSNES

- Use relaxation tapes
- Reduce caffeine intake
- Have a bath
- Do some gentle exercise

CRAVINGS

- Cravings are intense thoughts and feelings compelling a young person to use again that are extremely difficult to resist. Young people, who by virtue of their developmental stage think less about future consequences and can be more impulsive than adults, can find coping with cravings very difficult.
- Cravings will pass. Help the young person develop strategies to get through the most intense times.
- Remove 'cues' or reminders of use as these intensify craving.

- Remind the young person that although cravings may be really bad at first, they get easier to deal with the longer you go without using.
- Keep busy, use distractions like watching a dvd, exercising or dancing cooking or baking and then eating, cleaning, listening to music, playing games, go for a walk, talk to family or friends.
- When craving, a young person's thoughts often end up as an internal debate about the pro and cons of using. Even thinking about using will intensify craving (it is a cue of sorts) so rather than considering whether to use or not at length, suggest your young person puts off deciding for an hour. In this hour use distraction to take the young person's mind off things.
- Focus on what is happening at the moment and take each hour and day as it comes. Thinking too far ahead can often be overwhelming and counterproductive.
- Reward your young person each time they get through a period of craving. It is a definite achievement, as overcoming addiction is an extremely difficult thing to do.
- Further information on Emotional Regulation in the context of Youth with Alcohol or Other Drug consideration can be via the Youth AOD Toolbox Emotional Regulation⁶⁷

66. Winstock, A.R., Ford, C., Witton, J. (2010) "Assessment & Management of Cannabis use disorders in primary care. BMJ 340: C157

67. <http://www.youthaodtoolbox.org/introduction-emotion-regulation>

APPENDIX 8: MOTIVATIONAL INTERVIEWING STATEMENTS TO SUPPORT CLIENTS

Examples of welcoming statements for clients that have indicated substance use concerns

- I understand that you have concerns where you are currently at, what in particular is it that brought you in today?
- It's not easy to stop but in verbalising it you have made a great start
- I understand you don't want to quit altogether, what other options are you aware of that you would like to try?
- I think it's great that you are thinking about quitting. I think you can. What do you think you need to achieve it?

Example statements for clients seeking an increase or commencement on medications where the prescriber doesn't believe its indicated...

- It's great that you have come here today with the concerns about your use. I can't prescribe what you are asking for, but there are other options. What have you tried already?
- Sometimes what you are asking for isn't the best choice. What other options would you like to discuss?
- Medication is one option but there are many others

- There are medications I can recommend to help alleviate the symptoms. Would you like to discuss these?
- Everyone is unique and we need to develop a plan that addresses your needs. What have you tried before and what worked?

REFRAMING TO REAFFIRM

- That's great that you are ready to consider support, based on what you have read before you came in. What do you think might be worth considering?

APPENDIX 9: ALCOHOL WITHDRAWAL CHART

OBSERVE THE PERSON DURING A FIVE-MINUTE OBSERVATION PERIOD. THEN INDICATE A SCORE FOR EACH OF THE ALCOHOL WITHDRAWAL SIGNS.

Name: _____ Date of Birth: ____ / ____ / ____ Date and time of last alcoholic drink: _____

Time intervals vary depending on the severity of the withdrawal.
If the withdrawal is severe, observations should be hourly and reduce as situation dictates.

DATE											
TIME											
TEMPERATURE											
PULSE											
RESPIRATORY RATE											
BLOOD PRESSURE											
SCORES (SEE BELOW FOR NUMBERS)											
1. PERSPIRATION											
2. TREMOR											
3. ANXIETY											
4. AGITATION											
5. NAUSEA / VOMITING											
6. HALLUCINATIONS											
7. ORIENTATION											
8. HEADACHE											
9. FACIAL FLUSHING											
10. SEIZURES											
TOTAL SCORE											
DIAZEPAM AMOUNT IN MGS.											

TREATMENT GUIDE BASED ON SCORE

Score < 10 supportive care Score > 10 use of diazepam <10 mg every 1 - 2 hours up to maximum of 50mgs, until withdrawal scale is <10 and anxiety/agitation is relieved

Please note: treatment guide is a guide only and each incidence of withdrawal should be taken on a case by case basis with individual's past history taken into consideration.

APPENDIX 10: OBJECTIVE ALCOHOL WITHDRAWAL ASSESSMENT SCALE

ITEM 1: PERSPIRATION

- 0. No abnormal sweating
- 1. Moist skin
- 2. Localised beads of sweat e.g. on face, chest etc.
- 3. Whole body wet from perspiration
- 4. Profuse maximal sweating: clothes, linen etc. are wet

ITEM 2: TREMOR

- 0. No tremor
- 1. Slight intention tremor
- 2. Constant slight tremor of upper extremities
- 3. Constant marked tremor

ITEM 3: ANXIETY

- 0. No apprehension or anxiety
- 1. Slight apprehension
- 2. Understandable fear or apprehension e.g. of w/d symptoms
- 3. Anxiety occasionally accentuated to a state of panic
- 4. Constant panic like anxiety

ITEM 4: AGITATION

- 0. Rests normally during the day
- 1. Slight restlessness, cannot sit or lie still, awake when others sleep
- 2. Moves constantly, looks tense, but will stop moving on request
- 3. Constantly restless and pacing

ITEM 5: NAUSEA & VOMITING

- 0. None
- 1. Mild nausea, no vomiting
- 2. Intermittent nausea, dry heaves
- 3. Constant nausea and vomiting

ITEM 6: HALLUCINATIONS

- 0. No evidence of hallucinations
- 1. Distortion of real objects, aware that they are not real if this is explained
- 2. Appearance of totally new objects or perceptions. Aware they are not real.
- 3. Believes the hallucinations are real but still orientated to place and person
- 4. Believes themselves to be in a nonexistent environment preoccupied and cannot be diverted or reassured

ITEM 7: ORIENTATION

- 0. Young person is orientated to time, place and person
- 1. Young person is orientated in person but not sure of time or place
- 2. Orientated in person but not time and place
- 3. Doubtful person orientation. Disorientated in time and place. Short periods of lucidity
- 4. Disorientated in time, place and person. No useful communication can be made

ITEM 8: HEADACHES

- 0. Not present
- 1. Mild
- 2. Moderate
- 3. Severe

ITEM 9: FACIAL FLUSHING

- 0. None
- 1. Mild to moderate
- 2. Severe

ITEM 10: SEIZURES

- 0. None
- 1. Generalised seizure

APPENDIX 11: BENZODIAZEPINE WITHDRAWAL SCALE – CIWA –B (PAGE 1 OF 2)⁶⁸

Name: _____ Date of Birth: ____ / ____ / ____

(For each of the following 0=Not at all
 to 4 Very much so.)

CLIENT SHEET TOTAL SCORE FOR ITEMS 1 TO 20.

DATE									
TIME									
Do you feel irritable?									
Do you feel fatigued									
Do you feel tense?									
Do you have difficulties concentrating?									
Do you have loss of appetite?									
Have you any numbness or burning in your face hands or feet?									
Do you feel your heart racing? (palpitations)									
Does your head feel full or achy?									
Do you feel muscle aches or stiffness?									
Do you feel anxious, nervous or jittery?									
Do you feel upset?									
How restful was your sleep last night? (0=very much so; 4=not at all)									
Do you feel weak?									
Do you think you had enough sleep last night? (0=very much so; 4=not at all)									
Do you have any visual disturbances? (sensitivity to light, blurred vision)									
Are you fearful?									
Have you been worrying about possible misfortunes lately?									
Agitation. Observe behaviour for sweating, restlessness and agitations. 0=none; 2=restlessness; 4=paces back & forth									
Tremor. 0=No tremor; 1=not visible, can be felt in fingers; 2=visible but mild; 3=moderate with arms extended; 4=severe, with arms not extended									
Sweating. 0=no sweating visible; 1 barely perceptible, pams moist; 2=palms and forehead oist, reports armpit sweating; 3=beads of sweat on forehead; 4 severe drenching sweats.									
CLIENTS SCORE FROM PAGE 1									
SUBTOTAL									

68. Busto, U.E., Sykora, K. & Sellers, E.M. (1989). A clinical scale to assess benzodiazepine withdrawal. Journal of Clinical Psychopharmacology, 9 (6), 412-416.

Blood Pressure									
Pulse									
Temperature (per auxilla)									
Respirations									
Alert, Orientated, Obeys Commands? If no complete GCS and review.	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N
Pupil Size/Reaction (in mm)	L								
	R								
Clinician Signature									

TOTAL SCORE FOR ITEMS 1 TO 20

1-20 = Mild Withdrawal

21-40=Moderate Withdrawal 41-60

Severe Withdrawal
Severe Withdrawal

61-80=Very

APPENDIX 12: OBJECTIVE BENZODIAZEPINE WITHDRAWAL ASSESSMENT SCALE

THESE QUESTIONS REFER TO HOW THE CLIENT IS PRESENTING RIGHT NOW, AT THE PRESENT MOMENT.

Observe the person during a five-minute observation period. Then indicate a score for each of the

benzodiazepine withdrawal signs. You will need to ask about Items 3 and 4, the rest of the items are based on your

observation of their behavior.

ITEM 1: ANXIETY

- 0. No anxiety - at ease
- 1. Mild
- 4. Moderately anxious or guarded so anxiety is inferred
- 7. Equivalent to acute panic state as seen in severe delirium or acute schizophrenic reactions

ITEM 2: RESTLESSNESS / AGITATION

- 0. Normal activity
- 1. Somewhat more than normal activity
- 4. Moderately fidgety or restless
- 7. Unable to sit or stand still

ITEM 3: PALPITATIONS

- 0. No palpitations
- 4. Moderate awareness of heartbeat
- 7. Aware of heart racing constantly

ITEM 4: HEADACHE

- 0. No headache
- 1. Mild
- 4. Moderate
- 7. Severe

ITEM 5: CONCENTRATION

- 0. No difficulty concentrating
- 4. Moderate
- 7. Severe

ITEM 6: APPETITE

- 0. No loss of appetite
- 4. Moderate loss
- 7. Complete loss of appetite, unable to eat at all

ITEM 7: SLEEP

(morning observations only - not to be included in total score)

- 0. Sufficient sleep
- 1. Some sleep
- 4. Moderately/restless sleep
- 7. No sleep

APPENDIX 13: OPIOID WITHDRAWAL CHART

Note: Total score is indicative of increasing or decreasing severity of withdrawal. Scores are not directly linked to pharmacological management.

OBSERVE THE PERSON DURING A FIVE-MINUTE OBSERVATION PERIOD. THEN INDICATE A SCORE FOR EACH OF THE OPIOID WITHDRAWAL SIGNS

Name: _____

Date of Birth: ___ / ___ / ___

DATE										
TIME										
TEMPERATURE										
PULSE										
RESPIRATION RATE										
BLOOD PRESSURE										
PUPIL SIZE										
PUPIL REACTION										
WEIGHT										
SCORES (SEE BELOW FOR NUMBERS)										
1. YAWNING										
2. RHINORRHOEA										
3. PILOERECTION										
4. PERSPIRATION										
5. LACHRYMATION										
6. HOT & COLD FLUSHES										
7. MYDRIASIS										
8. TREMOR										
9. RESTLESSNESS										
10. ANXIETY										
11. MUSCLE TWITCHES										
12. VOMITING										
13. ABDOMINAL CRAMPS										
TOTAL SCORE										

Total Score

<12 Mild

13-24 Moderate

25 + Severe

APPENDIX 14: OBJECTIVE OPIOID WITHDRAWAL ASSESSMENT SCALE

ITEM 1: YAWNING

0 = no yawns 1 = > 1 yawn

ITEM 2: RHINORRHOEA

0 =>3sniffs 1 =>3sniffs

ITEM 3: PILOERECTION (ARM)

0 = absent 1 = present

ITEM 4: PERSPIRATION

0 = absent 1 = present

ITEM 5: LACRIMATION

0 = absent 1 = present

ITEM 6: HOT AND COLD FLUSHES

0 = absent
1 = shivering/huddling for warmth

ITEM 7: MYDRIASIS

0 = absent 1 = >3mm

ITEM 8: TREMOR (HANDS)

0 = absent 1 = present

ITEM 9: RESTLESSNESS

0 = absent
1 = frequent changes of position

ITEM 10: ANXIETY

0 = absent 1 = frequent

ITEM 11: MUSCLE TWITCHES

0 = absent 1 = present

ITEM 12: VOMITING

0 = absent 1 = present

ITEM 13: ABDOMINAL CRAMPS

0 = absent 1 = present

APPENDIX 15: SUBJECTIVE WITHDRAWAL SCALE

Name: _____ Date of Birth: ____ / ____ / ____

DATE										
TIME										
I FEEL ANXIOUS										
I FEEL LIKE YAWNING										
I AM SWEATING										
MY EYES ARE WATERING										
MY NOSE IS RUNNING										
I HAVE GOOSEBUMPS										
I AM SHAKING										
I HAVE HOT FLUSHES										
I HAVE COLD SWEATS										
MY BONES ACHE										
MY MUSCLES ACHE										
I FEEL RESTLESS										
I FEEL SICK										
I FEEL LIKE THROWING UP										
MY MUSCLES TWITCH										
I HAVE STOMACH CRAMPS										
I FEEL LIKE USING NOW										
I CAN'T SLEEP										
I FEEL DOWN										
I HAVE A HEADACHE										
TOTAL SCORE										

Total Score

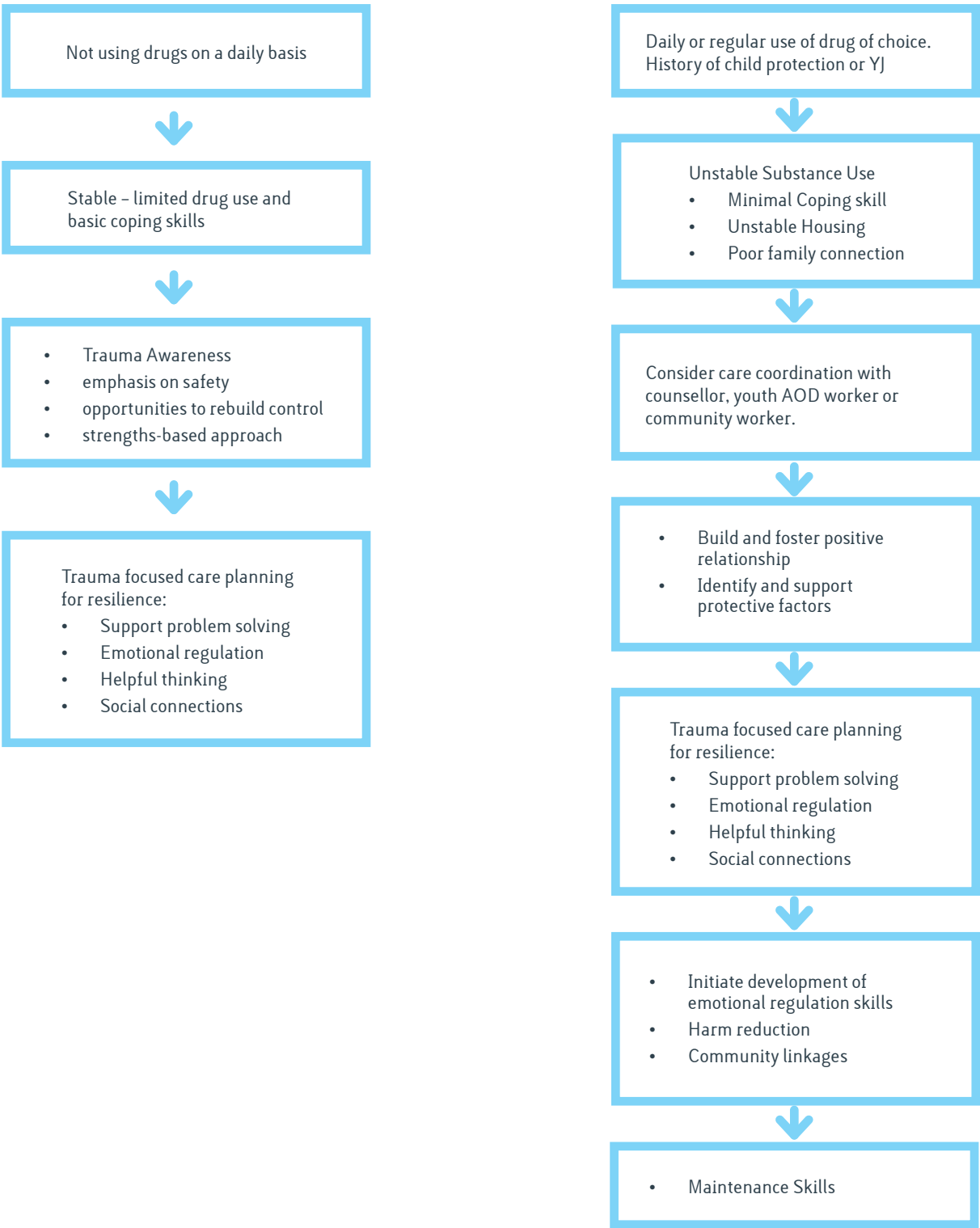
<10 Mild

11-20 Moderate

21 + Severe

APPENDIX 16: COMPLEX CO-MORBIDITY TRAUMA INFORMED FLOW CHART

SCREEN YOUNG PERSON FOR SUITABILITY – COMPLETE BIOPSYCHOSOCIAL ASSESSMENT. ASSESSMENT OF CLIENTS VULNERABILITIES AND RESILIENCE + RISK OF WITHDRAWAL





YSAS