FSG 1400-02
SUBSTANCE USE DISORDER

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REFERENCES:

A. AMA Directive 100-01 Medical Standards for CF Aircrew
B. CANFORGEN 151/18 CMP 076/18 281507Z AUG 18 CDS DIRECTION ON USE OF CANNABIS BY CAF MEMBERS.
C. DAOD 9004-1 Use of Cannabis by CAF Members.
D. DAOD 5019-7, Alcohol Misconduct issued 12 July 2010.
E. Surgeon General Communique on Cannabis 16th October 2018.
F. Beirness & E Beasley & P. Boase. Canadian Centre on Substance Use and Addiction and Transport Canada. comparison of drug use by fatally injured drivers and drivers at risk. Proceedings of the 20th International Conference on Alcohol, Drugs and Traffic Safety, 2013.
G. National Transportation Safety Board. 2014. Drug Use Trends in Aviation: Assessing the Risk of Pilot Impairment. Safety Study NTSB/SS-14/01. Washington, DC.
H. Golka K1, Wiese A. Carbohydrate-deficient transferrin (CDT)--a biomarker for long-term alcohol consumption J Toxicol Environ Health B Crit Rev. 2004 Jul-Aug;7(4):319-37.
I. CF Health Services Instruction 5100-16 – *Guidelines for the Application of MEL's to Personnel Suffering from Mental Illness.*
J. Surgeon General Approved MEL Guidelines Feb 2020.
K. American Psychiatric Association; *Diagnostic and statistical manual of mental disorders, 5th Edition*, 2013; DSM-5.

RECORD OF AMENDMENTS:

Date (DD/MMM/YY)	Reason for Change	OPI/SME	Fully Reviewed (Y/N)
29/JAN/24	Removed conflicting wording regarding abstinence requirements from the main document (para 22, 25,	Air Div Surg	Y

	29) and the Statement of Understanding (para 1). Amendments clarify that abstinence is required from the addictive substance as well as all other legal and illegal mood altering substances apart from caffeine, nicotine, and medically necessary prescriptions authorized by a flight surgeon. Reference to the Low Risk Drinking guidelines is removed as it is no longer up to date.		

TABLE OF CONTENTS:

GENERAL INFORMATION 3
CONTEXT AND DEFINITION 3
BACKGROUND 4
AEROMEDICAL RISKS 4
INITIAL MANAGEMENT 4
DSM-5 Screen for Alcohol use: 5
Severity 6
Biochemical Markers 6
MANAGEMENT OF AIRCREW WITH SUD 6
MEL ASSIGNMENT / INITIAL ASSESSMENT 7
TREATMENT 7
POST-TREATMENT 8
RELAPSE 8
FINAL DISPOSITION 9
CONSIDERATION FOR RETURN TO FLIGHT 9
ANNEX A: DECISION FLOWCHART 10
ANNEX B – DSM-5 DIAGNOSTIC CRITERIA 11
A problematic pattern of use leading to clinically significant impairment or distress is manifested by two or more of the following within a 12-month period: 11
ANNEX C – AIRCREW POST-TREATMENT STATEMENT OF UNDERSTANDING PROVIDED TO MEMBERS PRIOR TO RETURN TO FLYING DUTIES. 12
ANNEX D – STATEMENT OF UNDERSTANDING 13

GENERAL INFORMATION

1. This FSG replaces FSG 1400-02 (Alcohol Related Disorders in Aircrew) and applies to all types of substance use disorders (SUD) including alcohol and other drugs. This guideline shall be used to guide assessment, diagnosis, treatment and considerations for return to flying for aircrew with a known or suspected SUD.

CONTEXT AND DEFINITION

2. Substance Use Disorders (SUD) create widespread and serious problems in society and the Canadian Armed Forces (CAF) by harming basic social and military values as well as undermining security, morale, discipline and cohesion. The Diagnostic and Statistical Manual of Mental Disorders (DSM) 5th Ed. contains the current diagnostic criteria (Annex B). The psychiatric diagnoses of substance abuse and substance dependence in DSM-IV-TR were replaced by one diagnosis in DSM-5, Substance Use Disorder. Although

imprecise, substance dependence is approximately comparable to substance use disorder, moderate to severe subtype, while substance abuse is similar to the mild subtype. DSM-5 criteria for SUD are consistent across substances. Current severity can be specified in the diagnosis based on the number of symptoms present.

BACKGROUND

3. Substance use in aviation is a significant flight safety issue and has resulted in multiple flight safety incidents in the RCAF. SUDs in aviation have increased over the past 20 years according to a report by The National Transportation Safety Board (NTSB).

4. It is well established that operation of a motor vehicle, including aircraft under the influence of a substance is inherently dangerous. A recent study comparing British Columbia roadside survey results with post-mortem data on fatally injured drivers reported that cannabis use alone increased the risk of a fatal crash fivefold and that cannabis use, when combined with alcohol, increased the risk fortyfold.

AEROMEDICAL RISKS

5. The aeromedical risks of untreated SUD are significant and may include:

a. acute and chronic effects on cognitive and physical performance;

b. acute intoxication and hangover may cause impaired, cognition, judgment, and decreased G-tolerance;

c. subtle cognitive impairment, manifesting as slowed reaction time, inattentiveness, difficulty in monitoring multiple sensory inputs, and difficulty making rapid shifts of attention from one stimulus to another can occur for prolonged periods in chronic marijuana users;

d. risk of recurrence of problematic use; and

e. difficulty in detecting recurrence.

INITIAL MANAGEMENT

6. A comprehensive assessment for substance use disorder (SUD) is the first step in management and should:

f. Determine if a substance use disorder(s) is present.

g. Determine the severity of a patient's substance use.

h. Understand the patient's perception of their condition and readiness to change.

i. Identify comorbid psychiatric and medical conditions that may require additional assessment.

j. Identify barriers and facilitators to reducing substance use.

k. Develop an appropriate treatment plan.

l. Determine aeromedical disposition.

7. An assessment should also establish which substance(s) are or have been used. Unhealthy use of one substance increases the likelihood of unhealthy use of other substances; thus, assessment should include querying about other classes of substances.

8. The diagnostic criteria in DSM-5 must be met prior to a diagnosis of SUD. Clinical questions posed may help elicit the extent of use and consequent dysfunction related to their use of substance(s). Starting with socially accepted substances and progressing towards illicit drugs may help establish a level of comfort for the member and allow for further inquiry.

9. Inquire about use patterns for:

a. Caffeine, tobacco/nicotine, alcohol;

b. marijuana;

c. prescription medications misuse – e.g., opioids, sedative/hypnotics, stimulants; and

d. Illicit Drugs.

DSM-5 Screen for Alcohol use:

10. In the past 12 months, have you:

a. Had times when you ended up drinking more, or longer than you intended?

b. More than once wanted to cut down or stop drinking, or try to, but couldn’t?

c. Spent a lot of time drinking? Or being sick or getting over the aftereffects?

d. Experienced craving – a strong need, or urge, to drink?

e. Continue to drink even though it was causing trouble with your family or friends? Given up or cut back on activities that were important or interesting to you, or gave you pleasure, in order to drink?

f. More than once gotten into situations while or after drinking that increase your chances of getting hurt (such as driving, swimming, using machinery, walking in dangerous area, or unsafe sex)?

g. Had to drink much more than you once did to get the effect you want? Or found that your usual number of drinks had much less effect than before? and

h. Found that when the effects of alcohol were wearing off, you had withdrawal symptoms, such as trouble sleeping, shakiness, irritability, anxiety, depression, restlessness, nausea, or sweating? Or sensed that things were not there?

If ≥2 “Yes” responses are indicative of an alcohol use disorder.

11. Screen for comorbid mental health conditions as they may be more common with substance use disorder (consider depression, anxiety).

Severity

12. The severity of the SUD condition is defined by the number of DSM-5 criteria (Annex B):

a. Mild: Presence of 2–3 symptoms.

Note: possible elevated GGT and MCV, AST/ALT>2:1.

b. Moderate: Presence of 4–5 symptoms.

c. Severe: Presence of 6 or more symptoms.

Note: for moderate and severe, elevated GGT & MCV, AST/ALT>2:1

Biochemical Markers

13. Biomarkers may be used to obtain an objective laboratory measurement of excessive alcohol consumption. Although non-specific for alcohol use, they may serve as useful markers of excessive use and may be helpful to monitor for ongoing compliance with treatment. Liver function tests such as AST, ALT, and GGT, Carbohydrate Deficient Transferrin, and MCV may be obtained as a baseline if alcohol use disorder is suspected.

MANAGEMENT OF AIRCREW WITH SUD

14. The management of aircrew with SUD follows the same principles as the management of all CAF personnel. The application of Medical Employment Limitations (MELs) applies including a requirement to consider Air Factor assignment. The requirements that must be met to return active aircrew status are much more stringent than non-aircrew. The 1 CAD Surg / ASCS shall be consulted before returning aircrew to flying status in cases of suspected or diagnosed SUD.

MEL ASSIGNMENT / INITIAL ASSESSMENT

15. During the initial assessment phase, from the time the member presents for care until the diagnostic assessment has been completed, the following Air Factor and MEL would normally be assigned:

A7 (T6) – Unfit flying/controlling duties.

16. The A7 (T6) – Unfit flying/controlling duties MEL shall remain in effect (with an accompanying chit) until the diagnostic assessment is completed. Upon completion of the diagnostic assessment, a further Temporary Category (TCAT) may be required if the member requires ongoing care.

TREATMENT

17. For all severities of SUD, while the member is undergoing treatment, the following Air Factor and MEL shall be assigned:

A7 (T6) – Unfit flying/controlling duties.

a. If uncertain of diagnosis; ground member and await base addictions report.

b. Temporary Category forwarded to ASCS.

c. Refer to Base Addictions Counsellor (BAC).

d. Consult with Psychiatry as needed.

e. Group A Aircrew may require Aviation Psychiatry referral to determine fitness for duties once treatment complete.

18. When an aircrew member has a clearly established diagnosis of a substance use disorder, treatment is voluntary (i.e. a CAF member is not obliged to accept treatment as per ref D). If the aircrew member understands the requirement for treatment and refuses, a Permanent Category (PCat) of A7- Unfit flying/controlling duties shall be recommended to ASCS.

19. Treatment options include:

a. Mild SUD - Outpatient treatment and follow up with BAC/Flight Surgeon.

b. Moderate SUD will require Base Addiction assessment to see if suitable for outpatient program or if they need inpatient care.

c. Severe SUD - Inpatient care with Psychiatry follow up/BAC/Flight Surgeon.

20. Members diagnosed with Alcohol Use Disorder are encouraged to join AA or a similar program to support their abstinence and encourage sobriety.

21. As drug addiction support groups are more geographically variable for other substance use disorders, members are encouraged to join an appropriate support program where available.

POST-TREATMENT

22. Members who have successfully undergone treatment and have a good prognosis may be returned to active aircrew status, after consultation with Air Div Surg / ASCS, provided that the member agrees to abstain for the duration of their flying/controlling career from the substance in question as well as all other legal and illegal mood altering substances apart from caffeine, nicotine and prescribed medications authorized by a flight surgeon. In order to return to flying/controlling status, the member must agree to, and comply with, structured follow up and reassessment as follows:

a. Monthly for the first year;

b. Every three months in the second year; and

c. Every 6 months in the third year.

23. Members who are not successful in their treatment, have a high risk of relapse, or have a guarded prognosis shall remain on the assigned A7 Air Factor. The Air Div Surg / ASCS shall be consulted on the decision to recommend a PCat of A7.

RELAPSE

24. The treatment of Substance Use Disorders is difficult and recurrences even after treatment are common. Addiction is a brain disease and must be treated as a medical condition. The relapsing, remitting nature of this chronic disease must be recognized to provide appropriate treatment for the condition and its requirement for ongoing surveillance and care as required.

25. Strict abstinence from the addicted substance as well as all legal and illegal mood altering substances apart from caffeine, nicotine and medically necessary prescriptions authorized by a flight surgeon is a requirement to remain on active aircrew status. Relapse after return to active aircrew status (including occasional or social consumption) shall result in an immediate loss of active flying status. The following Air Factor and MEL shall be assigned:

A7 (T6) – Unfit flying/controlling duties.

Consultation with the Air Div Surg is required for further management, including possible assignment of a PCat, on a case-by-case basis.

FINAL DISPOSITION

26. As with all members who successfully complete the post-treatment reassessment period, aircrew require MELs to assure continued monitoring. This reflects the chronic nature of the disorder and the potential for relapse as part of the natural history of the disease. Aircrew with a history of SUD shall be reassessed yearly as part of the annual aircrew medical, as well as prior to deployment. Assignment of a geographical factor in accordance with CF H Svcs Gp Instr 5100-16 shall be considered.

CONSIDERATION FOR RETURN TO FLIGHT

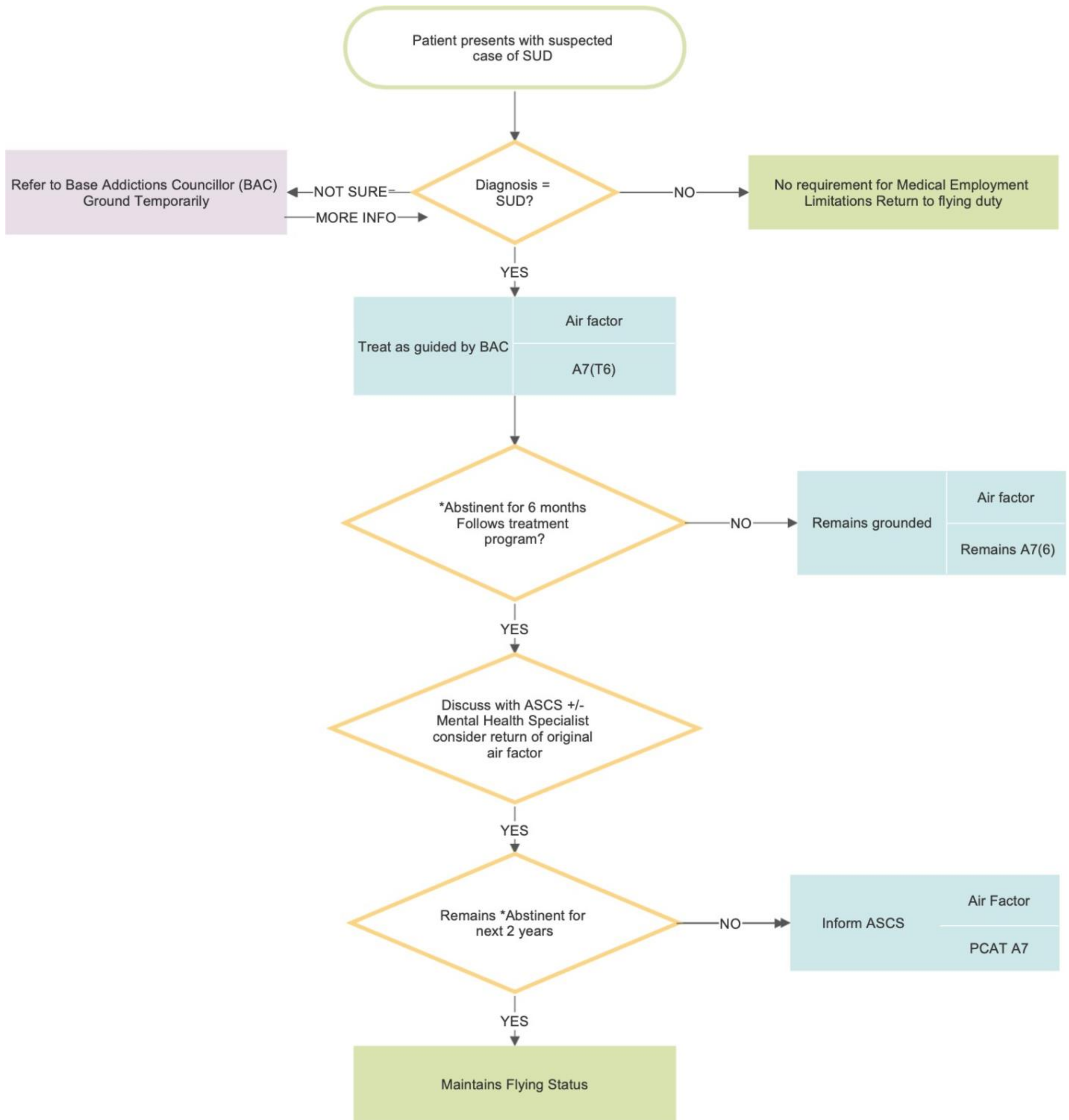
27. A minimum of six months abstinence is required before air factor will be re-considered by Air Div Surgeon / ASCS. Reconsideration will require a current report from BAC and psychiatry. The intent is to return the member to their original air factor unless there were other concerns.

28. Signed Annex D indicating member willingness to abstain from all relevant substances is required and acknowledgement that if the member fails to abstain or a later diagnosis of substance use disorder is made for a different substance it will likely result in permanent disqualification.

29. Abstinence from the addictive substance as well as all other legal and illegal mood altering substances apart from caffeine, nicotine and medically necessary prescriptions as prescribed and authorized by a flight surgeon will be required for the duration of their flying career.

30. The severity of the SUD and the presence of associated comorbid conditions will have a role in guiding patient management decisions. The investigation and treatment of substance use disorders usually requires an interdisciplinary health care team approach involving the primary care provider, base/wing addiction services, health promotion, self-help community resources (Alcoholics Anonymous, Narcotics Anonymous, etc.) and in more complicated cases, mental health resources. There are national and international clinical practice guidelines which can further aid in the management of individuals with substance use disorders.

ANNEX A: DECISION FLOWCHART



*Non-Rx drugs and alcohol

ANNEX B – DSM-5 DIAGNOSTIC CRITERIA

<u>A problematic pattern of use</u> leading to clinically significant impairment or distress is manifested by two or more of the following within a 12-month period:

a. Often taken in larger amounts or over a longer period than was intended.

b. A persistent desire or unsuccessful efforts to cut down or control use.

c. A great deal of time is spent in activities necessary to obtain, use, or recover from the substance's effects.

d. Craving or a strong desire or urge to use the substance.

e. Recurrent use resulting in a failure to fulfil major role obligations at work, school, or home.

f. Continued use despite having persistent or recurrent social or interpersonal problems caused or exacerbated by its effects.

g. Important social, occupational, or recreational activities are given up or reduced because of use.

h. Recurrent use in situations in which it is physically hazardous.

i. Continued use despite knowledge of having a persistent or recurrent physical or psychological problem that is likely to have been caused or exacerbated by the substance.

j. Tolerance, as defined by either of the following:

   (1) A need for markedly increased amounts of the substance to achieve intoxication or desired effect.

   (2) A markedly diminished effect with continued use of the same amount of the substance.

k. Withdrawal, as manifested by either of the following:

   (1) The characteristic withdrawal syndrome for the known substance.

   (2) The substance (or a closely related substance) is taken to relieve or avoid withdrawal symptoms.

ANNEX C – AIRCREW POST-TREATMENT STATEMENT OF UNDERSTANDING PROVIDED TO MEMBERS PRIOR TO RETURN TO FLYING DUTIES.

The Canadian Armed Forces approach to Substance Use Disorders for aircrew on active flying status is clearly described in the attached policy. As a member who desires a return to flying status with a history of SUD you will be required to agree in writing to certain conditions and to participate in a monitoring program. The monitoring program will last for two years or longer if deemed necessary by mutual agreement. The approach is designed to assist Canadian Armed Forces aircrew in continuing their recovery while returning to their flying duties.

The approach as outlined in "FSG – 1400-02 Substance Use Disorder has been accepted by the RCAF Surgeon and Aerospace Medical Authority on behalf of the CRCAF. A copy of the “Guideline” is provided for your information and reference. You will be monitored at your Base/Wing and all assistance possible will be given during your monitoring period.

ANNEX D – STATEMENT OF UNDERSTANDING

Conditions for Awarding of Active Flying Category Post-Treatment of Substance Use Disorders

I have read and fully understand the "Guideline" and introduction to the approach and agree to adhere to the following conditions:

1. I agree to abstain from all legal and illegal mood-altering substances apart from caffeine, nicotine and medications prescribed and authorized by a flight surgeon in any form as a requirement for returning to flying or controlling duties and further agree that I will remain abstinent as long as I am on active flying status as an aircrew member;

2. I understand that a further diagnosis of substance use disorder with a different substance will result in grounding and permanent A7 disqualification;

3. I agree to take no medication unless recommended as an adjunct to treatment and with appropriate restrictions by my monitoring Flight Surgeon/Medical Officer;

4. I will actively participate in an organized recovery program (i.e. Alcoholics Anonymous or equivalent). An equivalent approach must be sanctioned by my medical monitoring team, Flight Surgeon, Wing/Base Addiction Counselor;

5. I acknowledge that I may be asked to provide no-notice drug and alcohol testing (initially quarterly), and total abstinence for the duration of my military career. Testing may occur for at least two years. If the clinical situation warrants, the testing may go on for a longer duration of time.

6. I will follow the recommendations made by the treatment facility and the Wing/Base Flight Surgeon, Wing/Base Addiction Counselor.

7. I will attend scheduled assessment/treatment and counseling sessions at the discretion of the Flight Surgeon/Medical Officer and Wing/Base Addiction Counselor.

I understand that the conditions within this contract are non-negotiable to retain flying status. The above aspects of treatment are part of a total treatment package and will require my full cooperation and participation if I am to receive maximum benefit.

My signature indicates that I have read and understand the conditions. I am aware that should I either not wish to agree to the conditions or not follow the conditions that I will be grounded and awarded an Air Factor of A7.

____

Member’s Name (Print)	Member’s Signature	Date

____

Witness’ Name (Print)	Witness’ Signature	Date