FSG 1400-02
ALCOHOL RELATED DISORDERS IN AIRCREW

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References:

A. QR&O Chapter 20 Canadian Forces Drug Control Program
B. 1 Cdn Air Div Orders, Volume 1, 1-270, Alcohol and Flight Line Safety
C. 1 Cdn Air Div Orders, Volume 1, 1-271, Administrative Action Required for Use of Illicit Drugs or Misuse of Alcohol
D. DAOD 5019-7 Alcohol Misconduct issued 12 Jul 2010
E. DAOD 5019-3 Canadian Forces Drug Control Program
F. PG 3100-26 Misuse of Alcohol (Administrative Policy Applicable to CFHS Personnel)
G. PG 5100-03 Medical Investigation for Substance Use Disorders
H. PG 5100-05 Addiction Rehabilitation Program - Base Addiction Counselor
I. CANFORGEN 179-05 Safety Sensitive Drug Testing, Nov 2005
J. CANFORGEN039/08 13 Feb 08, Disclosure of Medical/Social Work Information to Commanding Officers
K. Current Medical Diagnosis & Treatment, 48th Ed (2009)
L. CFHS Instruction 5100-12 Use of Civilian Treatment Centres in Substance Use Disorders, Other Addictions, and PTSD

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CONTEXT AND DEFINITIONS

1. Alcohol abuse and dependence create widespread and serious problems in the Canadian Armed Forces (CAF) by harming basic social and military values as well as undermining security, morale, discipline and cohesion. Annex E contains the full Diagnostic and Statistical Manual of Mental Disorders (DSM) 4th Ed. description but briefly:

a. **Alcohol abuse** means a maladaptive pattern of repeated alcohol use as manifested by recurrent or significant adverse consequences; and

b. **Alcohol dependence** means a physiological or psychological dependence on alcohol as manifested by tolerance or symptoms of withdrawal.

BACKGROUND

2. The identification of substance abuse disorders is a complex process that may be missed by medical practitioners. Diagnosis largely relies on patient disclosure of personal information and physical examination. Substance use disorders are characterized by a pattern of maladaptive behaviour, lack of insight, denial, and concealment resulting in incomplete information upon which diagnosis and recommendations for treatment can be established. Substance use disorders are commonly associated with co-morbid psychiatric and general medical disorders; consequently, it is essential that substance abuse be included in the differential diagnosis for these conditions. When there is an index of suspicion on the part of health care providers, it is the physician's fiduciary duty to investigate further to confirm the diagnosis. Not to do so would be considered poor management and potential malpractice (ref H).

GENERAL

3. The references are quite comprehensive regarding the abuse of alcohol in the Canadian Forces and they should be consulted as necessary. However, there are unique concerns related to the aviation environment which require further direction. This Guideline is based on current medical knowledge of alcohol abuse as a medical disorder and represents the consensus opinion of the fully constituted Aerospace and Undersea Medical Board (AUMB) in consultation with the 1 Canadian Air Division Surgeon (1 Cdn Air Div Surg) and the Aerospace Medical Authority (AMA) and the Chief of the Air Staff Surgeon (CAS Surg). Because of concerns regarding operational effectiveness and flight safety, deviation from this Guideline should only occur after obtaining appropriate aeromedical advice from the 1 Cdn Air Div Surg who may in turn consult Medical Consult Services at CFEME Toronto.

AEROMEDICAL CONCERNS (RISK DISCUSSION)

4. The subtle performance decrement effects after even low doses of ethanol are well documented. These include increased reaction time, procedural errors and inattentiveness. With increasing blood levels one has loss of inhibitions and poor judgment. It can cause and potentiate disorientation including production of positional alcohol nystagmus and vertigo as well as an impaired ability to suppress inappropriate vestibular nystagmus. This susceptibility exists long into the hangover period. Ingestion of alcohol causes reduced +GZ tolerance and is associated with a higher accident rate in both ground and flight operations. Chronic ingestion with GI, CV and CNS effects can produce performance degradation and increased potential for sudden incapacitation. When use becomes abuse, the hallmark of this medical disorder is denial, with increasing tolerance for the substance. Monitoring for recurrence of abuse is an essential requirement. The aeromedical risks are significant and are as follows:

a. performance decrement;

b. increased risk of sudden incapacitation;

c. risk of recurrence of abuse; and

d. difficulty in detecting recurrence.

DIAGNOSIS

5. Alcohol abusing patients may present as outlined in ref D. In summary, they may seek assistance voluntarily, be referred by the Commanding Officer (CO) or present with another complaint.

6. Ref I defines an addiction as “the compulsive physiological and/or psychological need for a habit forming substance (i.e. drug) or the condition of being habitually or compulsively involved in a detrimental activity (i.e. gambling)”. Addiction involves four problem states:

a. craving;

b. loss of control;

c. dependence; and

d. tolerance.

7. The diagnosis of alcohol abuse or dependence in aircrew should not be taken lightly as it has significant long-term career implications involving acceptance of lifestyle changes as well as the usual effects for everyone, such as insurance. Regardless of career implications, the Flight Surgeon must be mindful of the very significant operational and flight safety implications of having an aircrew member flying with this medical disorder.

8. Aircrew members who meet the criteria for either alcohol abuse or dependence are considered to have a treatable disease. Flight Surgeons should have a Base or Wing Addiction Counselor consultation on every case and, if necessary, additional consultation, preferably with an Addictionologist or with a Psychiatrist familiar with the management of alcoholism or any other specialist deemed appropriate, in order to clearly establish the diagnosis. This is, of course, in addition to their standard medical examination and laboratory testing.

9. When an aircrew member has a clearly established diagnosis of either alcohol abuse or dependence, 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, he/she will be recommended unfit flying duties and assigned an A7. If the aircrew member requests further support of the diagnosis a second qualified opinion should be obtained.

10. Annex A to this Guideline outlines recommended tests and procedures which may assist in establishing a diagnosis.

TREATMENT

11. In the event of a diagnosis of Alcohol Abuse, an intensive residential program may not be the appropriate level of treatment or care for the level of diagnosis since this type of program is reserved for those who have met the DSM-IV criteria for alcohol dependence. The member may be treated using a Secondary Substance Abuse Intervention (SSI), a Guided Self Change (GSC) medical treatment program over the course of three days. The following would be an appropriate alcohol abuse treatment plan:

a. Total abstinence as long as the member is active aircrew (a defined minimum period of time may be appropriate in some circumstances);

b. Treatment in a 3 day SSI GSC;

c. 3 month follow-up; and

d. An 8 week Structured Relapse Prevention Program – An Outpatient Counseling Program developed by the Addiction Research Foundation and currently utilized by the Canadian Addiction and Mental Health (CAMH) group. This program is designed for those individuals who have a moderate or severe substance-abuse problem and who are willing to work on an outpatient basis towards changing their use of alcohol that, in the case of aircrew, means total abstinence. This program is intended to assist the member to achieve and maintain abstinence in a manner not addressed in the 3 day treatment program. The program must be individually tailored and designed to:

(1) Assess the member’s goals;

(2) State the organizations demands;

(3) Assist the member to anticipate the triggers to alcohol use and develop alternate ways of coping;

(4) Develop confidence by practicing coping skills in real life situations;

(5) Make connections between their alcohol use and other life situations; and

(6) Ultimately, become their own therapist by anticipating risk situations and pre- planning coping strategies.

12. In the event of a diagnosis of Alcohol Dependence, arrangements are made for an acceptable civilian in-patient treatment program (Annex B) preferably to begin within 4 to 6 weeks. Alternatives to an in-patient treatment program would only be acceptable in unusual circumstances and only after the concurrence of the 1 Cdn Air Div Surg.

13. Although D Med Pol guidelines state that non-aircrew members under treatment for alcohol abuse or alcoholism will not be given changes to the “G” and “O” factors, the aircrew member must agree to abstain from alcohol and mood altering drugs in any form as a requirement for returning to flying duties and further agree to remain abstinent as long as on aircrew status. Therefore, a temporary geographic category will be assigned since the member is at risk of experiencing a relapse of a chronic medical condition during which the member will be unable to complete expected duties.

a. G4 (T6) – Requires in-patient medical care followed by regular medical follow- up more frequently than every six months; and

b. A7 (T3) – Unfit aircrew duties, fit to fly as passenger.

14. The temporary G4 (T6) geographic deployment restrictions must be maintained for the full six months. It is expected that the temporary category may be removed at this time, however, this action is dependent upon individual circumstances and an extension of 3 or 6 months may be required.

15. After successful completion of the In-patient Program, an active flying category may be restored if certain conditions have been met and agreed to in writing (Annex C, D).

16. The initial A7 (T3) temporary grounding can be extended for a further 3 or 6 months if felt necessary in individual cases.

17.

RELAPSE

18. Strict abstinence from alcohol and other mood altering drugs is a requirement to remain on active flying aircrew status. Treatment failure or relapse which occurs in the first six months following in-patient treatment will require a further period of temporary grounding and re-assessment of treatment options (e.g. further in-patient therapy). Relapse after a permanent air category has been assigned, which would include a return to occasional or social consumption, would result in an immediate loss of active flying status. In these unique cases consultation with Medical Consult Services at CFEME Toronto is required. An aircrew member may be considered for re-treatment counseling and subsequent reinstatement of flying privileges provided that the previously stated conditions have been met.

REFERRAL

19. The variable circumstances of individual cases may lead to difficulties in diagnosis and/or management. The Flight Surgeon may, at any time during the process of identification, diagnosis, treatment or follow-up, consult with the Medical Consult Services and if mutually agreeable, refer the aircrew member to the Medical Consult Services for addiction specialist consultation and recommendations.

ANNEX A – DIAGNOSIS OF ALCOHOL DEPENDENCE

1. Major Criteria:

    a. Physiologic dependence as manifested by evidence of withdrawal when intake is interrupted;

    b. Tolerance to the effects of alcohol;

    c. Evidence of alcohol-associated illnesses, such as alcoholic liver disease, cerebellar degeneration

    d. Continued drinking despite strong medical and social contraindications and life disruptions;

    e. Impairment in social and occupational functioning;

    f. Depression; and

    g. Blackouts.

2. Other signs:

    a. Alcohol stigmas: alcohol odor on breath, alcoholic facies, flushed face, scleral injection, tremor, ecchymoses, peripheral neuropathy;

    b. Surreptitious drinking;

    c. Unexplained work absences;

    d. Frequent accidents, falls, or injuries of vague origin; in smokers, cigarette burns on hands or chest; and

    e. Laboratory tests:

        (1) elevated values of liver function tests;

        (2) mean corpuscular volume;

        (3) serum uric acid; and

        (4) triglycerides.

ANNEX B – LIST OF SUGGESTED PROVIDERS OF PHASE II SERVICES

(See Also "Best Practices– Substance Abuse, Treatment and Rehabilitation in Canada)

1. Canadian Forces Addiction Rehabilitation Centre

    a. Canadian Forces Base Halifax
    FMO Halifax NS
    (902) 427-0550 Local 8606

2. Québec — Francophone

    a. Maison Jean Lapointe
    111, rue Normand, Montréal QC H2Y 2K6
    (514) 288-2611Fax: (514) 288-2910
    Executive Director: Mr. Rodrigue Paré

    b. Pavillon Jellinek,
    25, rue St-François, Hull QC J9A 1B1
    (819) 776-5584 Fax: (819) 776-0255
    Director: Mr. Guy Carle
    Six-week program

3. Québec — Anglophone

    a. Pavillon Foster
    Montréal QC (514) 859-8911
    Director: Mr. M. Kokin
    Cost: per patient/day

    b. La Maisonnée de Laval
    8255, boul. Des Laurentides
    Auteuil, Laval QC H7H 1T2
    (514) 628-1011
    Director: Mme. Paulette Gulnois
    Three-week program

4. Ontario

    a. Bellwood Health Services Inc
    1020 NcNicoll Avenue, Scarborough ON M1W 2J6
    (416) 495-0926 Fax: (416) 495-7943
    Director: M. Linda Bell
    Cost: per patient/day with or without family services

    b. Meadow Creek –
    Royal Ottawa Hospital Addiction Services
    1145 Carling Avenue, Ottawa ON K1Z 7K4

(613) 722-6521 Fax: (613) 722-5048
Director: Jo-Anne Morisset
Four-week program (or cost per patient/day)

c. Homewood Drug and Alcohol Service Homewood Health Centre
150 Delhi Street, Guelph ON N1E 6K9
(519) 824-1827 Fax: (519) 824-1827
Director: Dr. G. Cunningham
Cost: per patient/day

d. Manitoba and Saskatchewan
Addiction Foundation of Manitoba Men's Residential Unit
Women's Centre for Substance Abuse
Winnipeg MB
(204) 944-6200/6229
Director: Ms. Roberta Coulter
Cost: per patient/day

5. Alberta and Saskatchewan

a. Henwood Treatment Centre Alberta Alcohol and Drug Abuse Commission
18750-18 Street, Edmonton AB T5B 4K3
(403) 422-9069 Fax: (403) 422-5408
Director: Mr. Brian Kearne
Cost: per patient/day

b. Northern Addictions Centre Alberta Alcohol and Drug Abuse Commission
11333-106 Street, Grande Prairie AB T8V 6T7
(403) 538-5210 Fax: (403) 538-6359
Director: Mr. David Nesbitt
Cost: per patient/day

6. British Columbia

a. Pacifica Treatment Centre
1755 east 11 Avenue, Vancouver BC V5N 1V0
(604) 872-5517 Fax: (604) 872-3554
Director: Dr. Pauline M. Grey, PhD
Cost: per patient/day

b. Edgewood
2121 Boxwood Road
Nanaimo BC V9S 4L2
(250) 751-0111 or 1-800-683-0111
Fax: (250) 751-2758
Email: info@edgewood.com
Director of Medical Services: Dr. Gary Richardson

ANNEX C – AIRCREW POST-TREATMENT STATEMENT OF UNDERSTANDING.

Introduction

1. This is a letter to introduce you to the Canadian Armed Forces approach to Alcohol – Related Disorders specifically for aircrew on active flying status. 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.

2. The approach as outlined in "Guidelines for the Management of Alcohol – Related Disorders in Aircrew" has been accepted by the Chief of the Air Staff. 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.

CAS Surgeon

Aerospace Medical Authority

ANNEX D – STATEMENT OF UNDERSTANDING

Conditions for Awarding of Active Flying Category Post Treatment of Alcohol – Related 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 alcohol and mood altering drugs 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 agree to take no medication unless recommended as an adjunct to treatment and with appropriate restrictions by my monitoring Flight Surgeon/Medical Officer;

3. 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;

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

5. I will attend scheduled assessment/treatment and counseling sessions at the discretion of the Flight Surgeon/Medical Officer and Wing/Base Addiction Counselor not less than once per month for the first year, after treatment and for the second year at a frequency of not less than once every three months. Further follow up if deemed necessary and mutually agreeable can continue on an individual basis.

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

ANNEX E – MEDICAL CONSIDERATIONS OF SUBSTANCE ABUSE

(From Current Medical Diagnosis and Treatment, 48th Edition)

1. "Substance abuse is a major public health problem in North America. The lifetime prevalence of alcohol abuse is approximately 18%, whereas the lifetime prevalence of alcohol dependence is near 13%. Rates appear to be higher in men, whites, and younger and unmarried individuals. Approximately two-thirds of high school seniors are regular users of alcohol. Alcohol dependence often co-exists with other substance disorders as well as with mood, anxiety, and personality disorders. Under-diagnosis and treatment of alcohol abuse is substantial, both because of patient denial and lack of detection of clinical clues. Treatment rates for alcohol dependence have slightly declined over the last several years. Only a quarter of alcohol-dependent patients have ever been treated.

2. Alcoholism is a syndrome consisting of two phases:

   a. **Problem drinking** (misuse) - Problem drinking is the repetitive use of alcohol, often to alleviate anxiety or solve other emotional problems

   b. **Alcohol Addiction** - Alcohol addiction is a true addiction similar to that which occurs following the repeated use of other sedative-hypnotics. Alcohol and other drug abuse patients have a much higher prevalence of lifetime psychiatric disorders. While male-to-female ratios in alcoholic treatment agencies remain at 4:1, there is evidence that the ratesare converging. Women delay seeking help, and when they do they tend to seek it in medical or mental health settings.

3. As with cigarette use, clinician identification and counseling about alcoholism may improve the chances of recovery. About 10% of all adults seen in medical practices are problem drinkers. An estimated 15-30% of hospitalized patients have problems with alcohol abuse or dependence, but the connection between patients' presenting complaints and their alcohol abuse is often missed.

4. The CAGE test (see below) is both sensitive and specific for chronic alcoholism. However, it is less sensitive in detecting heavy or binge drinking in elderly patients and has been criticized for being less applicable to minority groups or to women.

5. Others recommend asking three questions:

   a. How many days per week do you drink (frequency)?

   b. On a day when you drink alcohol, how many drinks do you have in one day (quantity)?

   c. On how many occasions in the last month did you drink more than five drinks (binge drinking)?

6. The Alcohol Use Disorder Identification Test (AUDIT) in Table 1-10, consists of questions on the quantity and frequency of alcohol consumption, on alcohol dependence symptoms, and on alcohol-related problems. It has been found to accurately detect hazardous drinking, harmful drinking, and alcohol dependence and does not seem to be affected by ethnic or gender bias.

7. Choice of therapy remains controversial. However, use of screening procedures and brief intervention methods can produce a 10-30% reduction in long-term alcohol use and alcohol-related problems.

8. However, brief advice and counseling without regular follow-up and reinforcement cannot sustain significant long-term reductions in unhealthy drinking behaviors."

SCREENING

9. There are several screening instruments that may help identify alcoholism. One of the most useful is the CAGE questionnaire [Current Medical Diagnosis & Treatment – 48th Edition (2009) Table 1-10]

CAGE Questionnaire:

C	Have you ever felt the need to cut down on your drinking?
A	Have you ever felt annoyed by criticism of your drinking?
G	Have you ever felt guilty about your drinking?
E	Have you ever taken a morning eye opener?
INTERPRETATION: Two "yes" answers are considered a positive screen. One "yes" answer should arouse a suspicion of alcohol abuse.	

CRITERIA FOR SUBSTANCE ABUSE

Reference: Diagnostic and Statistical Manual of Mental Disorders (DSM-IV, 2000)

Etiology:

10. There is evidence that genetic factors play a role in both dependence and abuse. Other theories involve the use of substances as a means to cover up or get relief from other problems (e.g., psychosis, relationship issues, stress), which makes the dependence or abuse more of a symptom than a disorder in itself.

Symptoms:

11. A pattern of substance use leading to significant impairment in functioning is seen. One of the following must be present within a 12 month period: (1) recurrent use resulting in a failure to fulfill major obligations at work, school, or home; (2) recurrent use in

situations which are physically hazardous (e.g., driving while intoxicated); (3) legal problems resulting from recurrent use; or (4) continued use despite significant social or interpersonal problems caused by the substance use. The symptoms do not meet the criteria for substance dependence as abuse is a part of this disorder.

Treatment:
12. Research suggests that no treatment method is superior, but that social support is very important. An openness to accept the abuse is also paramount in successfully treating the illness. Organizations such as AA and NA have had better than average success in reducing relapse.

Prognosis:
13. Variable – both substance abuse and dependence are difficult to treat and often involve a cycle of abstinence from the substance and substance use.

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Symptoms:
15. Substance use history which includes the following: (1) substance abuse (see below); (2) continuation of use despite related problems; (3) increase in tolerance (more of the drug is needed to achieve the same effect); and (4) withdrawal symptoms.

Treatment:
16. Detoxification treatment may need to be administered due to the dangerousness of some withdrawal symptoms. Research suggests that no treatment method is superior, but that social support is very important. Organizations such as AA and NA have had better than average success in reducing relapse.

Prognosis:
17. Variable – both substance abuse and dependence are difficult to treat and often involve a cycle of abstinence from the substance and substance use.

ANNEX F – REFERENCES ON AVIATION EFFECTS OF ALCOHOL AS A FLIGHT HAZARD

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