Recommendations for Health Care Providers in the Treatment of Methamphetamine Use Disorders
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Working Group on Recommendations for Health Care Providers in the Treatment of Methamphetamine Use Disorders;
Department of Medical Services, Ministry of Public Health, Thailand
Foreword from the Director-General of the Department of Medical Services, Suphan Srithamma, M.D.

To deal with the current drug problem situation in Thailand, the government is focusing on prevention and solutions by shifting from a “national agenda” to an “ASEAN agenda”, with controlling the epidemic of drug abuse considered to be a matter of the utmost urgency. Policies for prevention, promotion and rehabilitation of patients with substance use disorders (SUD) are being actively promoted. The current “National Anti-Drug Action Plan” is a voluntary treatment system which is being improved by increasing the efficacy of the treatment process in order to encourage people with SUD to enter a treatment program. Family involvement is emphasized, by empowering them to seek out and encourage people with SUD to enter a rehabilitation program. Government officials play an important role in the aftercare process by providing support in the community. It is the duty of the Ministry of Public Health to improve the readiness and efficacy of the treatment system; and health care staff, especially those working in primary district hospitals, should be able to screen for the severity of SUD. Based on the above situation and policy, the Department of Medical Services decided on measures to help solve this problem and improve the treatment process by:

1. Developing models and strategies that are appropriate for the situation.
2. Improving the efficiency of professionals who work in tertiary drug treatment centers.
3. Developing and improving the health care referral system (government-sponsored service plans) to support referred cases.
4. Encouraging substance treatment hospitals to be qualified by hospital accreditation in order to ensure that patients in all treatment centers are taken care of with the highest standards of quality.

The Department of Medical Services is aware of the importance for health care providers at all levels to have effective guidelines to follow – especially in the case of methamphetamine use disorders, which represent the majority of drug cases. A working group was set up to develop recommendations for health care providers in the treatment of methamphetamine use disorders. This working group reviewed all research, both in Thailand and other countries. Advisers, academicians, experts in substance abuse treatment both inside and outside the Department, and stakeholders from all levels of the health care system were invited to give comments. The process consumed a great deal of time and energy, and I wish to personally thank the members of the working group, including all advisors, experts and stakeholders, for developing these recommendations and for their valuable input which has made these recommendations more worthwhile. On behalf of the Department of Medical Services, I hope that these recommendations can relate to the work of health care providers in all levels of substance abuse treatment, so that people with methamphetamine use disorders will receive more efficacious treatment. I also hope that these recommendations can play an important part in helping to solve the nation’s epidemic drug problem.

Suphan Srithamma, M.D.
Director-General of the Department of Medical Services
Foreword from the Deputy Director-General of the Department of Medical Services, Paskorn Chaivanichsiri, M.D.

The drug epidemic is a problem of great concern, because it affects the quality of life not only of the people who use drugs but also their families and communities, as well as the nation’s stability. In line with the “Defeating Drugs by Nation Power Action Plan, 2014”, the government is focusing on system improvement and increasing staff efficiency. In regard to staff improvement, we found that professionals who work in substance treatment have to perform all of the key processes: assessment, prevention promotion, rehabilitation and aftercare. Official reports show that, among all substances, methamphetamine use is the most severe aspect of the drug epidemic and accounts for a greater number of people treated. Furthermore, the behavior of using more than one substance is increasing, a development which will make treatment more complex. Patient assessments show a trend of increasing addiction and greater severity, according to recent information from the Intelligence Analysis and Surveillance Division of the Office of the Narcotics Control Board.

The Department of Medical Services in conjunction with the Princess Mother National Institute on Drug Abuse Treatment and six regional Thanyarak Hospitals have developed these recommendations for treatment of methamphetamine use disorders in order that health care providers in primary, secondary and tertiary hospitals can follow them with confidence.

I would like to thank the working group for sacrificing their time and energy to collect and review the information herein. I hope that these recommendations will serve as a useful practical tool for health care providers to offer the most efficacious treatment for people with substance use disorders. Lastly and most importantly, treated patients will be able to return to the community in good health.

Paskorn Chaivanichsiri, M.D.
Deputy Director-General of the Department of Medical Services
Preface

The drug problem in Thailand is a national problem which is complex and relates to many other societal problems, such as social, economic and political stability. In the public health system, the drug problem is a health issue that affects users, their families, communities and society, causing low quality of life and asset loss. Some users have psychiatric problems, which is one reason for the high morbidity and mortality of drug use disorders. Thailand is trying to connect with nations and international organizations, especially the United Nations and ASEAN, in order to strengthen cooperation in border areas, improve efficiency of neighboring countries in solving drug problems, prepare to enter the ASEAN Community, and promote a drug-free ASEAN policy by 2015.

Treatment records for the past years show that people with substance use disorders are receiving treatment increasingly every year for methamphetamine (“ice”) and amphetamine (“yaba”). The data indicate that these are the most epidemic drugs in Thailand. Information on the treatment of methamphetamine use disorders is available but differs in context, and generally neglects the connectivity within the treatment system and the ensuing impact on treatment. The Ministry of Public Health through the Department of Medical Services conceptualized the idea of developing recommendations for treatment of people with methamphetamine use disorders. Thanyarak Hospitals group, with Thanyarak Chiang Mai Hospital as a coordinator, was assigned to complete this project. Experts from Thanyarak Hospital, the Department of Mental Health, universities, nursing schools, and stakeholders from primary, secondary and tertiary hospitals were invited to brainstorm and generate useful recommendations for the project. This will provide essential knowledge based on available evidence for all health care providers in every level, so they will be able to assess, treat and refer complex cases and special-group patients. These recommendations are intended for practical use by all drug personnel so they will be able to provide efficacious treatment, prevention and rehabilitation for patients with methamphetamine use disorders.

Worapong Samrantiwawan, M.D.
Director of Thanyarak Chiang Mai Hospital
Chairman of the Working Group on Recommendations for
Health Care Providers in the Treatment of
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Intentions

These recommendations are not intended to be used as practice guidelines or a standard legal reference, since practices are based on the context of the patient and on scientific evidence which can change over time. The issues discussed here are only recommendations, which are not guaranteed for successful treatment in all patients. This might not contain all effective treatment modalities; also, some ineffective treatment modalities have been omitted. Decision-makers of treatment modalities may use other sources of evidence (e.g. family, associated legal institutes, and others) to help with individual decisions.

The Thailand Department of Medical Services invited experts such as psychiatry professors, nursing professors, psychiatrists, physicians from the Department of Medical Services, and stakeholders from all levels of the health care system to join this project. There is little available evidence in this field in comparison with the severity of the drug problem in Thailand. Our intention was to collect all the available evidence, together with expert opinions and aspects of application, in order to compile information that would be most useful for all health care providers. We also tried to illustrate the connectivity of the treatment system. In this way, one can identify one’s place in the treatment system and choose the right recommendation for the particular situation. Furthermore, these recommendations indicate the important issues that require further study, which is useful information for researchers. These recommendations will be updated when there is new scientific evidence or when the drug situation has changed.

Goals: for people with methamphetamine use disorders to receive proper assessment and continuous treatment based on current scientific evidence, and to remain abstinent.

Objectives: for health care providers in the field of methamphetamine use disorders in primary, secondary and tertiary hospitals to have recommended practices to follow, so that they can assess severity, give diagnosis and provide proper treatment, including pharmacotherapy and psychosocial interventions.

Target group for treatment: patients with methamphetamine use disorders who visit primary, secondary and tertiary hospitals.

Target group for using these recommendations: health care providers who work in primary, secondary and tertiary hospitals.
Definitions

Health care providers: therapists in primary, secondary and tertiary hospitals who treat patients with methamphetamine use disorders.

Clients: people with methamphetamine use disorders.

Lapse: process before a relapse, usually occurring after abstinence.

Relapse: primary process of recurrence in drug use behavior; it is an indicator of treatment failure at that time.

Methamphetamine abuse: use of methamphetamine that meets the criteria of methamphetamine abuse in the Diagnostic and Statistical Manual of Mental Disorders, 4th ed. (DSM-IV).

Methamphetamine dependence: use of methamphetamine that meets the criteria of methamphetamine dependence in the Diagnostic and Statistical Manual of Mental Disorders, 5th ed. (DSM-5).

Methamphetamine use disorders: use of methamphetamine that meets the criteria of methamphetamine addiction in the Diagnostic and Statistical Manual of Mental Disorders, 5th ed. (DSM-5).

Risk of substance-associated problems, according to ASSIST: use of methamphetamine and an ASSIST score of mild, moderate or severe.

Walk-in patients: patients with substance use disorders who voluntarily receive treatment programs in public and private hospitals.

Patients in an enforced system: patients in the system which provides treatment services in rehabilitation centers, established under Thailand’s Narcotic Addict Rehabilitation Act, 2002. People who are arrested for illegal substance use will enter this treatment program. After completing the recovery process, they will be released without prosecution.

Patients in the penal system: drug offenders and detainees who are treated in special hospitals under the law, e.g. in prisons (Department of Corrections, Ministry of Interior), through the Office of Probation (Department of Probation, Ministry of Justice), or in regional Juvenile Observation and Protection Centers (Department of Juvenile Observation and Protection, Ministry of Justice).
Process of developing these recommendations

1. A working group at Thanyarak Chiang Mai Hospital was appointed to manage funding approval from the Academic Support Foundation, Department of Medical Services, Ministry of Public Health.

2. A working group in the Department of Medical Services was appointed. This level of working group included psychiatrists, physicians, nurses, and a multidisciplinary team of experts in the treatment of methamphetamine use disorders from the Princess Mother National Institute on Drug Abuse Treatment and from six regional Thanyarak Hospitals.

3. Questionnaires were sent to health care providers in primary and secondary hospitals to solicit their requirements for practicing in this field.

4. Advisors from the Faculty of Medicine, Chiang Mai University, were invited to join in drafting the recommendation.

5. All available evidence on methamphetamine use disorder practices was reviewed from available guidelines and manuals in Thai and in English-language electronic databases, including: PubMed, Cochrane Collaboration, CINAHL via EBSCO search engine, BMJ Clinical Evidence, Wiley–Blackwell, and NIH Public Access.

6. A semifinal draft was produced from meetings held by the working group, with cooperation from experts and hospital representatives.

7. A tentative final draft was approved and sent to experts to condense the contents.

8. The final draft was sent to be printed. The recommendations are to be used in all addiction training programs by physicians and personnel in all levels of hospitals.

9. A panel of experts assessed the outcome of recommendations development.

10. A report on the outcome was issued, together with suggestions for a future edition.
### Executive Summary

**Concept of methamphetamine treatment in Thailand**

The epidemic problem of methamphetamine (MA) use has produced serious effects in terms of demand, supply, and potential demand, especially in the past 5 years.

Treatment access for methamphetamine use disorders is a major problem, especially considering the large number of methamphetamine users.

An assessment system with high sensitivity and specificity is crucial for Thailand.

The severity of drug-using behavior is assessed by a standard measurement called WHO ASSIST (the World Health Organization’s Alcohol, Smoking and Substance Involvement Screening Test); this technological assessment process needs to be modified until it fits in with the situation in Thailand.

When the international diagnostic system changes, the diagnostic system in practice also needs to change.

Methamphetamine treatment has to correlate with current health system development. Furthermore, to solve drug problems, resources should be managed properly in order to prevent serious effects on society.

There are various treatment modalities that can be performed by community associates and at all levels of hospitals. Essential to success is an integration of health systems, networks, human resources, financial resources and academic resources.

**Concept of acute methamphetamine treatment in Thailand**

Primary-care hospitals are expected to primarily manage adverse symptoms from co-occurring psychiatric disorders (COD).

Tools with high sensitivity and specificity to assess COD are being developed. More support in the process is critical.

Researchers have found that COD treatment can enhance abstinence and moderation of drug-using behavior and also decrease the relapse rate for psychiatric disorders.

Early adverse symptoms from methamphetamine use are psychosis, mood swings, anxiety, aggression, and suicide attempts. Since there is no medication approved specifically for these conditions, supportive symptomatic treatment is practical to calm patients down. The benzodiazepine group of medicines is very effective for sedating patients with these symptoms. If the benzodiazepine group doesn’t work, the next choice would be antipsychotic drugs. Among antipsychotic drugs, no difference in efficacy has been shown. (Quality of evidence IIa; strength of recommendation ++)*

**Concept of longer management of methamphetamine treatment in Thailand**

Longer management and psychosocial processes are keys to successful relapse prevention.
Knowledge about the aftercare process should be reviewed and passed on to primary care units and their connections.

For pharmacological management, there is no drug approved to prevent relapse. Nevertheless, some medications have shown efficacy in decreasing the amount of substance use in small and specific population groups. Those drugs are d-amphetamine, methylphenidate, bupropion, mirtazapine and naltrexone. (Quality of evidence Ia; strength of recommendation +/-)*

All psychosocial treatments have shown efficacy in decreasing the amount of substance use; for example:

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<th>Objectives</th>
<th>Level of hospitals</th>
<th>Recommendation</th>
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<tr>
<td>Brief Advice (BA)</td>
<td>To help patients be aware of the effects of substance use</td>
<td>All levels of hospitals (3–5 minutes)</td>
<td>Ib ++</td>
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<td>Brief Intervention (BI)</td>
<td>To encourage patients to enter a higher-level hospital</td>
<td>Community or secondary hospitals and above (3–15 minutes)</td>
<td>Ib ++</td>
</tr>
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<td>The Matrix Intensive Outpatient Program</td>
<td>To develop skills needed for drug abstinence and relapse prevention</td>
<td>Community or secondary hospitals and above (4 months)</td>
<td>Ib ++</td>
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<td>Cognitive Behavioral Therapy (CBT)</td>
<td>To modify thoughts, moods and behaviors related to substance use</td>
<td>Community or secondary hospitals and above</td>
<td>Ib ++</td>
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<tr>
<td>Therapeutic Community</td>
<td>To modify behavior using community and self-help as therapeutic elements</td>
<td>Specialized hospitals</td>
<td>III +/-</td>
</tr>
<tr>
<td>FAST Model</td>
<td>To modify behavior using community and family involvement as therapeutic elements</td>
<td>Specialized hospitals (4 months)</td>
<td>III +/-</td>
</tr>
<tr>
<td>Psychosocial treatments</td>
<td>Objectives</td>
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<tr>
<td>PMK Model</td>
<td>To treat patients using a combination of Twelve-Step Facilitation, Buddhism, and group process</td>
<td>Specialized hospitals (28 days)</td>
<td>III +/-</td>
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<td>Family Intervention</td>
<td>To improve family function to aid in recovery</td>
<td>Community or secondary hospitals and above</td>
<td>Ib +</td>
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<td>Satir Model</td>
<td>To focus on internal psychological growth</td>
<td>Community or secondary hospitals and above</td>
<td>IV +/-</td>
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<td>Twelve-Step Facilitation (TSF)</td>
<td>To empower self-development based on Twelve-Step and self-help principles</td>
<td>Hospitals, community organizations or NGOs</td>
<td>Ib +/-</td>
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<tr>
<td>Case Management</td>
<td>To manage complex cases effectively</td>
<td>Community or secondary hospitals and above</td>
<td>III +/-</td>
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<td>Motivational Interviewing (MI) and Motivational Enhancement Therapy (MET)</td>
<td>To enhance behavior modification through a self-perception process</td>
<td>Community or secondary hospitals and above</td>
<td>Ib ++</td>
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<td>Contingency Management (CM)</td>
<td>To reinforce abstinence behavior by rewarding; may be combined with other treatment modalities</td>
<td>Community or secondary hospitals and community organizations (12 weeks or longer)</td>
<td>Ib +</td>
</tr>
<tr>
<td>Behavior Modification Camp</td>
<td>To modify behavior by placing patients in rehabilitation camp</td>
<td>Community organizations (10–45 days)</td>
<td>IV +/-</td>
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### TREATMENT FOR SPECIAL GROUPS

Psychotic symptoms found in methamphetamine dependence are treated with antipsychotic drugs. New-generation antipsychotic drugs may produce fewer side effects (e.g. movement abnormalities), but no drugs show clear efficacy. (Quality of evidence Ib; strength of recommendation ++)*

<table>
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<tr>
<th>Special groups that should be of concern are juveniles, pregnant women, working age, elderly, and men who have sex with men. Since there is little evidence on the preferred treatments for these groups, psychosocial treatments are selected on a case-by-case basis to suit each patient.</th>
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* Note: Criteria for quality of evidence and strength of recommendation are given in Resource Page 5–7.
Diagram 1  Treatment and referral system for people with methamphetamine use disorders in Thailand

Diagram showing the flowchart for the treatment and referral system for people with methamphetamine use disorders in Thailand. The flowchart includes decisions for seeking treatment, assessing and categorizing, compulsory, voluntary, and correctional systems, and return to community/follow up (Primary care unit). Notes: Military hospitals and police organization - Military hospitals are hospitals under Army, Navy and Air Force - Police organizations are Territorial Defense Department and Border Patrol Police.
Diagram 2  Primary Treatment recommendations for people with methamphetamine use disorders

- Have acute signs and symptoms: Intoxication, overdose, aggression, psychosis, suicidal idea
- Have psychiatric comorbidity
- Assess with ASSIST/Thai Screening Form

1. Low risk (ASSIST)
   - Low (Thai Screening Form)
   - BA (Resource Page 3)
   - 3 month-follow up
   - Abstinence
   - Discharge

2. MOderate risk (ASSIST)
   - Moderate (Thai Screening Form)
   - BI or CBT/MI depend on hospitals’ resource (Resource Page 3)
   - 6 month-follow up
   - Yes

3. High risk (ASSIST)
   - High (Thai Screening Form)

4. Follow primary care guidelines (Resource Page 2)
   - Improved
   - Refer to specialized hospitals
   - Consult psychiatrist

Note; Level of hospitals
1 = primary care units and above
2 = secondary hospitals and above
3 = tertiary hospitals and above
4 = specialized hospitals
*operated by available personnel in that setting
Diagram 3  Primary treatment recommendations for people with methamphetamine use disorders (high-risk users)

High-risk users according to ASSIST & Thai Screening Form

2,3 MI/Counseling to refer to higher level of care

2,3 Choose treatment modalities

2,3 Outpatient treatment

2,3 Withdrawal treatment (Resource Page 2)

2,3 Rehabilitation treatment (Resource Page 3)

1,2,3 Longer management and 1-year follow up (Resource Page 4)

4 Inpatient treatment

4 Withdrawal treatment (Resource Page 2)

4 Rehabilitation treatment (Resource Page 3)

1, 2, 3, 4 Longer management and 1-year follow up (Resource Page 4)

1, 2, 3, 4 No

1,2,3,4 Abstinence

1,2,3,4 Yes

Discharge

Note: Level of hospitals
1 = primary care units and above
2 = secondary hospitals and above
3 = tertiary hospitals and above
4 = specialized hospitals
*operated by available personnel in that setting
Diagram 4  Treatment recommendations for people with methamphetamine use disorders in emergency situations

- **Overdose/Intoxication**
  - Activated charcoal/gastric lavage
  - IV hydration/medications
  - Symptomatic treatment

- **Withdrawal**
  - Symptomatic treatment
  - Observe depression and suicidal attempt

- **Aggression**
  - Limit behavior
  - Chemical sedation

- **Depression**
  - Provide close observation and safety environment
  - Assess suicidal ideation
  - Start antidepressant

- **Suicidal attempt**
  - Provide close observation and safety environment
  - Explore cause of suicidal ideation

**Physical conditions**
- V/S, Neuro Signs
- Lab/EKG as needed

**Psychiatric conditions**
- Assess behavior

**Successful management**
- No: Refer
- Yes: Treat as inpatient

**Note:** See Resource Page 2 for further details
Diagram 5  Assessment and management for methamphetamine overdose

1. Patients with history of large amount methamphetamine use
   - Assess vital signs
     - ABC & Neurological signs are normal
   - Yes → Have methamphetamine withdrawal
   - No → Gastric lavage / Activated charcoal
     - Patient is improve
     - No → Refer
     - Yes → Assess Lab
       - Patient is improve
       - No → Refer
       - Yes → Need admission
         - No → Refer
         - Yes → Hospital is ready to admit the patient
           - No → Refer
           - Yes → Treat complications until patient is safe

2. Have methamphetamine withdrawal
   - Yes → Give symptomatic treatment & observe for agitation/ depression/suicidal attempt
   - No → Refer

Note: See Resource Page 2 for further details
Diagram 6  Assessment and management for methamphetamine use disorders with aggression and self-harm behavior

Patient with aggression or suicidal behavior

- Successful negotiation
  - Yes
  - No
- Sedating medication is needed after assessment
  - Yes
  - Diazepam 5-10 mg PO/IV or Haloperidol 5-10 mg PO/IV
  - No
  - Re-assess
  - Patient is improved
  - Yes
  - No
- Assess vital sign, ABC, Neurological sign, Lab
  - Non-assessable
  - Refer
  - Assessable
  - Need admission
    - Yes
    - Hospital is ready to admit the patient
      - Yes
      - Treat complications until patient is safe
      - No
      - Refer
    - No
    - Refer
  - Follow Mental Health Act (category 3: treatment, part 1: patient)

Note: See Resource Page 2 for further details
Key Contents
Introduction

The current world methamphetamine epidemic reportedly includes 26 million users, two-thirds of whom live in Asia (East and Southeast Asia). From a survey on drug suppression in Thailand in 2012 and 2013 by the Office of the Narcotics Control Board, Ministry of Justice, it was found that the most widely used drugs are amphetamine ("yaba") and methamphetamine (88.7 and 89.7% of users, respectively), followed by cannabis (4.7%). When looking at the arrest rate over the past 2 years, the increasing severity of the overall drug epidemic is indicated by the fact that major drug dealers were arrested more than retail dealers. Methamphetamine continues to be the drug with the greatest number of arrests, especially among adolescents who are considered to have the highest risk of substance involvement. Data for 2014 revealed that 23.6% of drug users were 15–19 years old while 57.8% were 20–34 years old. Most of the people who use illegal substances are general employees (45%) and the unemployed (17.5%). In terms of level of education, it was found that most patients who entered treatment were junior high school level (47.7%), with high school level accounting for 16.1%. Surprisingly, 20.9% were in elementary school. New cases are emerging more rapidly compared with the past 5 years of data, as it was found that in 2014 the number of new patients rose by 69%.

It is estimated that the number of persons in Thailand who get involved with drugs could be as high as 1,900,000–2,000,000. Only 322,951 patients entered treatment programs in 2013. In 2014, the number decreased to 252,504, which represents only 20–22% of users. This means that most patients have to live with this illness without receiving treatment. The net result is social and economic problems, because when people don’t get the appropriate treatment they will develop medical and psychological symptoms, a high relapse rate, and chronic drug dependence leading to disability. For these reasons, improvement is needed in treatment, prevention and solutions to reduce the adverse impacts from substance use.

The Department of Medical Services has been continuously running programs to prevent and resolve drug addiction problems. We provide tertiary treatment for complicated substance use cases and pass on essential knowledge to all levels of substance care. Substance treatment manuals have been published and distributed to improve the efficacy of substance treatment in all levels of hospitals. Screening, diagnosis, primary management and longer-term management are emphasized. To lower the risk of substance involvement and high-risk behavior in high-risk populations, prevention campaigns are being advocated.
Prevention and solution efforts during the years 2013–2014 included a campaign on awareness of drug addiction and development of an observation system. The observation system functions in association with a network of organizations to seek out cases, provide primary psychosocial intervention, screen, give treatment, prevent relapse, and monitor cases. More support is provided by pharmacological treatment for primary management, in addition to psychosocial treatment, knowledge management, human development, case management and academic conferences. Longer-term monitoring is still a problem because of a lack of knowledge in the community and gaps in the referral system. It is critical to compile referral recommendations for patients with methamphetamine use disorders in order to provide effective service. Users of these recommendations can seek out further reading in order to gain more confidence in their practice.

Evidence review on methamphetamine use disorders

Epidemic amphetamine-type stimulants in Thailand are amphetamine (“yaba”), methamphetamine, and “ice”. Their chemical forms are methamphetamine sulfate, methamphetamine, and methamphetamine hydrochloride. Laboratory tests have found that almost all methamphetamine in Thailand is a mixture of methamphetamine hydrochloride. Methamphetamine is classified by Thai law (Narcotics Act, 1979) as a type-1 illicit drug.

Ice is a kind of stimulant which is currently even more epidemic. Chemically, ice is methamphetamine in hydrochloride salt, with 80–90% purity.

Another stimulant that is problematic is “E”, a synthetic drug that has a chemical structure similar to methamphetamine, with stimulating and hallucinogenic effects.
### Table 1  Form of amphetamine-type stimulants

<table>
<thead>
<tr>
<th>Properties</th>
<th>Tablet(^1)</th>
<th>Methamphetamine crystal(^2)</th>
<th>Powder</th>
<th>Base</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Name</strong></td>
<td>Methamphetamine, Diligent drug, Anti-sleepy drug, Dope drug, Horse drug (&quot;yama&quot;)</td>
<td>Ice</td>
<td>Speed</td>
<td>Base</td>
</tr>
<tr>
<td><strong>Feature</strong></td>
<td>Tablets with trademarks, e.g. Horse, &quot;โพ&quot;, WY</td>
<td>Pure crystalline hydrochloride</td>
<td>Powder or powder in capsules</td>
<td>Hydrated powder, in pieces; has higher purity than powder</td>
</tr>
<tr>
<td><strong>Color</strong></td>
<td>Orange, brown, purple, pink, grey, yellow, green</td>
<td>White, clear or other colors</td>
<td>White or yellow</td>
<td>White to yellow or brown</td>
</tr>
<tr>
<td><strong>Routes</strong></td>
<td>Oral, smoke, intravenous (IV)</td>
<td>Smoke, sniff, IV, oral, anal suppository</td>
<td>Sniff</td>
<td>Usually IV, sometimes oral</td>
</tr>
</tbody>
</table>

\(^1\) Form of epidemic amphetamine in Thailand
**Chemical structure**

Amphetamine and methamphetamine differ only in the presence of an additional methyl group, as shown in the figure below.

![Chemical structures of amphetamine and methamphetamine](image)

**Amphetamine**

**Methamphetamine**

**Pharmacology**

Methamphetamine can be absorbed rapidly in the gastrointestinal tract and is metabolized in the liver via aromatic hydroxylation, N-dealkylation and deamination processes. Seven types of metabolized agents can be found in urine, with a half-life of 4–5 hours; 62% of the orally consumed drug is excreted in urine within 24 hours. Since the process depends on the acidity of urine, high vitamin C consumption can alleviate the effects of methamphetamine.

**Mechanism of action**

Methamphetamine inhibits reuptake and metabolism of dopamine. It also increases secretion of noradrenalin and serotonin which are the main neurotransmitters that control human mood and behavior.

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Methamphetamine is a synthesized drug affecting dopamine, noradrenaline and serotonin levels, which control mood and behavior. It is rapidly excreted in acidified urine.
Table 2  Physical and psychological effects of methamphetamine at varying dosages

<table>
<thead>
<tr>
<th>Effects</th>
<th>Low dose</th>
<th>High dose</th>
<th>Overdose</th>
<th>Other risks from methamphetamine use</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical effects</td>
<td>- Increased systolic and diastolic blood pressure</td>
<td>- Increased blood pressure</td>
<td>- Agitation, chills</td>
<td>- Risk from unsafe sex which leads to sexually transmitted diseases such as HIV, syphilis, genital warts, genital herpes simplex infection</td>
</tr>
<tr>
<td></td>
<td>- Sweating</td>
<td>- Tachycardia</td>
<td>- Tachypnea</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Chills</td>
<td>- Seizure</td>
<td>- Assaultive behavior</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Chest pain</td>
<td>- Intracranial hemorrhage</td>
<td>- Confusion</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Tachypnea</td>
<td>- Jaw clenching, teeth-grinding</td>
<td>- Hallucinations, hyper-vigilance</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Headache</td>
<td>- Nausea, vomiting</td>
<td>- Increased body temperature</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Hot flashes</td>
<td></td>
<td>- Rhabdomyolysis</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Increased body temperature</td>
<td></td>
<td>- Fatigue</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Decreased appetite</td>
<td></td>
<td>- Tachycardia</td>
<td></td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>- High or low blood pressure</td>
<td></td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>- Circulatory collapse</td>
<td></td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>- Nausea, vomiting</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>- Diarrhea, colicky pain</td>
<td></td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>- Seizure, coma and death</td>
<td></td>
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</tr>
</tbody>
</table>
## Psychological effects

<table>
<thead>
<tr>
<th>Effects</th>
<th>Low dose</th>
<th>High dose</th>
<th>Overdose</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>- Dreamy state</td>
<td>- Confusion</td>
<td>- Psychotic symptoms: auditory and visual hallucinations and paranoid ideation</td>
</tr>
<tr>
<td></td>
<td>- Euphoria</td>
<td>- Anxiety and agitation</td>
<td>- Mood disturbances, especially aggression, anxiety and agitation</td>
</tr>
<tr>
<td></td>
<td>- Increased alertness and concentration</td>
<td>- Performance of repetitive motor activity</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Decreased fatigability</td>
<td>- Impaired cognitive and motor performance</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Talkativeness</td>
<td>- Aggression</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Increased physical fitness</td>
<td>- Paranoid ideation, hallucinations</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Delusions</td>
<td></td>
</tr>
</tbody>
</table>
Effects of methamphetamine

Methamphetamine causes mood and anxiety disorders during both intoxication and withdrawal periods. Mood symptoms range from mild nervousness to severe symptoms that meet psychiatric disorders criteria. Studies on patients who use methamphetamine have found that most users have depressive and anxious symptoms (48–58%), while a large percentage have only depressive symptoms (38–40%) or only anxious symptoms (26.2%). The most prevalent anxiety disorders are generalized anxiety disorder (12.3%), social anxiety disorder (8.5%), post-traumatic stress disorder (5.8%), panic disorder (2.6%) and agoraphobia (2.6%). Some users develop psychotic symptoms (28–36.8%) including persecutory delusions (77.4%), auditory hallucinations (44.6%) and other negative symptoms (21.4%). When used with opioids, methamphetamine can increase suicidal ideation or attempts by 2–11%.

Methamphetamine-induced mood disorder produces significant, persistent mood changes. The symptoms are not supposed to last longer than 1 month after drug use, but can occur both during intoxication and the withdrawal period. Mood changes can include feelings of sadness, anxiety, elation, or loss of interest in pleasurable activities.

Methamphetamine-induced anxiety disorder is characterized by anxiety, panic attacks and obsessive–compulsive behavior. These symptoms can be severe enough to impair work performance, social life, and other important life functions. The symptoms typically do not last longer than 1 month after drug use, but can occur both during intoxication and the withdrawal period.

In patients who have pre-existing mood or anxiety disorders, the use of methamphetamine can precipitate their symptoms. While more severe psychiatric symptoms can cause a higher amount of methamphetamine usage, it can also make the treatment more complex and hence require a longer period of time. For all of the above reasons, patients should be assessed for a predisposition to mood or anxiety disorders. For example, some patients who are depressed use methamphetamine as a solution, which only serves to continue the depression, while other patients may develop manic symptoms after drug use. The new concept of comorbidities or dual diagnosis makes the treatment more successful by treating both disorders concurrently.

Risk factors of methamphetamine-induced mood and anxiety disorders include frequent usage, intravenous or intranasal administration, and a predisposition or family history of mood and anxiety disorders.

- A physical effect of methamphetamine is autonomous system hyperactivity as seen by tachycardia, sweating, tachypnea, high blood pressure, arrhythmia, coma and death.
- Psychological effects of methamphetamine are anxiety, agitation, auditory hallucination, depression and chronic psychiatric disorders.
- Social and legal effects are higher incidence of accidents, crime, conflicts, arrest and family and social violence.
Methamphetamine during pregnancy

With its teratogenic and embryocidal effects, methamphetamine is in pregnancy category C. Surviving fetuses are at high risk of preterm birth, being underweight, or suffering from withdrawal symptoms such as agitation and fatigability.

Methamphetamine and lactation

Since methamphetamine is secreted through breast milk, breastfeeding is not suggested.

Methamphetamine in children

Methamphetamine can add to the severity of motor and vocal tics or Tourette’s syndrome, and might cause sudden death from hyper-stimulation of the central nervous system. It can also generate heart arrhythmia, structural abnormalities and growth retardation. Children 7–10 years of age who use methamphetamine daily have a low growth rate compared with the normal population.

Methamphetamine and the elderly

The geriatric population has decreased liver and kidney function, resulting in a slower rate of excretion and hence longer-lasting effects of methamphetamine.

Effects of long-term methamphetamine use

Chronic stimulation of the central nervous system leads to the following physical and psychiatric symptoms:

1. Weight loss and malnutrition
2. Changes in the nervous system, memory impairment, and dizziness
3. Abnormal menstruation and dysmenorrhea
4. Seizure
5. Drug tolerance
6. Cognitive impairment, especially memory and concentration
7. Aggressiveness, anxiety and paranoid ideation
8. Mania and depression
9. Psychotic symptoms, including distorted perception, hallucinations and delusions
10. Chronic sleep problems
Effectiveness/efficacy of methamphetamine treatment

There are five issues of concern regarding the effectiveness/efficacy of methamphetamine treatment.

1. Assessment

Patients should be evaluated on these issues:
- Concurrent use of drugs such as heroin, alcohol, sleeping pills and inhalants
- Usual amount of drug being used
- Duration of drug use
- Physical or psychiatric illness during period of treatment
- Basic life problems, personality, family and social characteristics

2. Pharmacotherapy

Current scientific evidence is inconclusive about which kinds of medicine are effective in the treatment of methamphetamine use disorders. However, some studies have shown that d-amphetamine, methylphenidate, bupropion, mirtazapine and naltrexone might decrease the amount of amphetamine use. Conclusions concerning the efficacies of these medicines are indeterminate because of the limited number of studies and small sample sizes. Currently, there is no medicine approved by the Food and Drug Administration for use in methamphetamine treatment. Many other medicines have been the subject of experiments on their efficacy in treating methamphetamine use disorders. Different outcome measurements have been used by researchers, but most have defined efficacy in terms of decreasing the amount of methamphetamine use. Other correlated measurements are severity of withdrawal symptoms and treatment retention rate. Minimal withdrawal symptoms together with good compliance may reflect strong motivation for drug abstinence. Ultimately, this makes users successful in achieving moderation or total abstinence.

From the standpoint of lowering drug usage, these medicines may be effective:
- **D-amphetamine** may alleviate methamphetamine withdrawal symptoms and severity of addiction, but does not decrease the frequency of use.
- **Methylphenidate** may be effective in lowering drug usage, as measured by negative urine tests in intravenous users.
- **Bupropion** may help reduce methamphetamine use in small-amount users.
- **Mirtazapine** together with counseling is effective in lowering drug usage, as measured by a negative urine test, among men who have sex with men. Decreased high-risk sexual behavior is correlated with a negative urine test.
- **Naltrexone** may be effective in lowering drug usage, as measured by a negative urine test, and may help patients remain abstinent. Prescribing N-acetylcysteine (NAC) does not appear to show any benefits.
Studies have found that d-amphetamine alleviates methamphetamine withdrawal symptoms, while amineptine can help only with some withdrawal symptoms. However, neither of these drugs is available in Thailand. For the treatment of methamphetamine-induced psychosis, antipsychotic drugs are the drug of choice. New-generation antipsychotic drugs produce fewer extrapyramidal side effects than the older drugs.

The above information indicates that there are no definitively effective medicines for the treatment of methamphetamine use disorders. However, some studies have shown benefits of some medicines. Further studies are needed to confirm their efficacy in treatment. Lastly, studies in Thai patients are essential for the implications in a Thai context.

3. Psychosocial treatment

Some methamphetamine use disorders are triggered by psychosocial factors, including family conflicts, low self-esteem, drug-using friends, being surrounded by a drug-dealing environment, and the psychological consequences of drug-using behavior. Many patients admitted that social approval is critical to keeping their spirits up while attempting to quit drug-using behavior.

Psychotherapy should be included in the treatment process and should be tailored to suit individuals. In the process, the therapist will focus on three main concepts: methamphetamine causing harm, substitute activities during abstinence, and setting life goals. Goals that are universal are employment, economic status, social status and marriage. Another successful factor is counseling family and colleagues in order to destigmatize the issue and to find additional social support for patients.

4. Alternative medicine therapy

A few studies have suggested that alternative medicines, including acupuncture and herbal medicine, are beneficial in treating methamphetamine addiction and withdrawal. Despite the unclear evidence, this type of therapy might be added to the main treatment process and used as persuasion for patients to enter the treatment process. Further studies in this field should focus on the efficacy in withdrawal treatment, since it has been a matter of controversy whether the treatment is helpful or not.

- No medicine is approved for the treatment of methamphetamine dependence.
- D-amphetamine, methylphenidate, bupropion, mirtazapine and naltrexone may help reduce drug use behavior.
- Psychosocial treatments are still the main treatments for methamphetamine dependence.
- Few studies are available on methamphetamine dependence treatment.
Principles for treatment of methamphetamine use disorders

These are the primary issues that should be considered and understood in the treatment of methamphetamine use disorders:

1. Addiction is a chronic relapsing disease. Modalities of treatment should be chosen to suit individuals.
2. It is critical to assess patients’ stage of change and to enroll them in the appropriate treatment program as soon as possible.
3. Effective treatment should serve various demands of patients and encourage them to continue treatment for a sufficient period of time.
4. Individual/group counseling and other behavior therapies are well-established treatments for methamphetamine use disorders, while many patients also need combined pharmacotherapy.
5. Harm reduction for patients with HIV, hepatitis B and C infection should be accomplished by behavioral modification.
6. Family assessment and therapy should be done and adjusted throughout the process of treatment in order to suit individuals’ needs. Patients should be assessed and treated accordingly if a dual diagnosis exists.
7. Detoxification is only the beginning of the treatment process.
8. Family, employer or legal intervention can increase the percentage of patients entering treatment. Monitoring substance use is essential for early detection of a relapse and is a warning sign for treatment plan adjustment.
9. A holistic approach – meaning biological, psychological, social and spiritual assessment – is more effective than utilizing only one of the concepts.
10. Specifically for treatment of methamphetamine use disorders, patients should be committed and cooperative, and must participate in every step of treatment.
11. Each patient is unique, so there should be a variety of treatments to suit each individual.
12. The amount and routes of methamphetamine consumption should be part of the data to be considered when developing the treatment plan.
13. Patients should be asked whether other substances are being used.
14. Methamphetamine-use patients with a personality disorder are at high risk of a relapse.
15. Safety and legal issues should be a concern at all times during treatment.
Issues of concern in Thailand

Obstacles in access to health care services

Factors affecting health care service access are:

1. Patient factors
   - Negative attitude toward treatment
   - Not believing that treatment will be helpful
   - Not trusting professionals and the service system
   - Believing that treatment is not effective
   - Knowing that a relapse after treatment is even worse

2. Family factors
   - Concern about confidential issues, especially at the time of first treatment
   - Concern about the appropriateness of the treatment received
   - Concern that treatment together with other users would be an unfortunate choice, forming new bad networks and triggering a relapse
   - Many methamphetamine users live with grandparents in the absence of their real parents due to economic status; the grandparents usually don’t have sufficient resources to be a very good source of support
   - Families are usually unaware of the importance of early-phase treatment; on the contrary, they often enable patients to use drugs by bribing them with rewards such as material things, or by sending them to live in other countries

3. Community factors
   - A negative attitude toward drug users generates a lack of social support for this group of patients

4. Hospital factors
   - Limitations in services
   - Professionals usually have many duties, affecting the continuity of treatment that patients receive
   - A proactive strategy is difficult to adopt because of political instability in some areas of the country
   - Hospital limitations: e.g. operating hours, long waiting times, small waiting areas, and a lack of rapid response to current problems

Challenges in the service system

The challenges in the service system include increasing the access rate to the service, and longer-term follow-up to help patients remain abstinent and in remission.
Harm reduction approach

The target groups for this approach are intravenous drug users, patients who chronically relapse despite intensive psychosocial treatment, and those who have no awareness of the drug’s effects on themselves and others. That is to say, the harm reduction or risk reduction approach should be the last strategy used to lower personal and community risks or problems that are related to methamphetamine use. The process is client-centered and flexible, and is used when patients are not ready for abstinence.

Harm reduction aims to help patients reduce their drug-using behavior and remain abstinent for a longer period of time. Ultimately, they will develop skills to live a life without methamphetamine.

Harm reduction methods

The methods focus on an individual approach, with concern for human rights and humanity. Patients achieve a better understanding the nature of methamphetamine users through cognitive and behavior modification based on empirical harm reduction knowledge:

1. Education to build up awareness of the importance of harm reduction, including the following essential information:
   - Diseases or disorders caused from methamphetamine use
   - The use of clean needles and other equipment
   - Safe sex
   - Providing information and a help service center
   - Treatment and rehabilitation for methamphetamine users

2. Treatment that follows a holistic bio-psycho-social model and includes all four aspects of care: promotion, prevention, treatment and rehabilitation

2.1 Health promotion should include these topics and suggestions:
   - Eating healthy food, and not skipping meals
   - Getting enough exercise
   - Getting enough sleep
   - Good personal hygiene
   - Being in a good atmosphere with good ventilation
   - Encouraging positive thinking or being optimistic
   - Stress management

2.2 Prevention counseling on methamphetamine-related diseases, symptoms, epidemic status, severity of disease, and self-care
2.3 Treatment

- Methamphetamine users should undergo use assessment, screening for severity of the disorder, and laboratory investigation
- Continue medication until reaching remission

2.4 Rehabilitation (both physical and psychological)

- Activities such as physical rehabilitation and exercise
- Group therapy for psychological rehabilitation, including issues such as stress management, cognitive modification, communication skills and social skills
- Occupational therapy, properly chosen for individuals
- Attending social support groups

Benefits of a harm reduction approach

- It is a collaborative effort between patients and therapists
- Life stress could be resolved
- Helps patients adjust to the new environment
- It is a good start for abstinence
- Can save drug users’ lives
- Helps curb epidemics of infectious diseases
- Offers a choice to users of whether they want to quit or not
- It is a responsive and understanding method
- Lessens social problems

The harm reduction or risk reduction approach is indicated only for intravenous users and users who have already received intensive psychosocial intervention but nevertheless relapsed. It is considered to be the last choice of treatment.
Considerations for specific groups of methamphetamine users

Adolescents
This group of patients increasingly uses methamphetamine, putting them at risk of the following:
- Unprotected sex
- Curious or bingeing use
- Use with other drugs such as alcohol and cannabis

The nature of physical, cognitive and emotional development in adolescents is an issue of concern. Their brains are different from adults, as the executive and inhibitory functions are still developing. Talking about the negative effects of methamphetamine use and about prevention is the best way to start intervention with this group. Giving them information and flexible support correlated with their perception is the optimal method. Another critical issue is that peer influence can abundantly affect adolescent patients. Researchers have also found that depression is the major factor for continuation of drug use. Based on this knowledge, patients should receive empirical assessment from the beginning of the treatment process, including psychiatric comorbidities, risk factors and protective factors.

The therapist should begin by building rapport, and gradually provide Brief Intervention specially selected for this group. The family also plays an important role in successful treatment.

Adults (working age)
With its properties of stimulation, methamphetamine is believed to increase working capacity among employees, especially among truck drivers, workers, students and businessmen. They use methamphetamine to overcome fatigue and to lengthen working time, despite the drawbacks of little sleep and infrequent meals. Therapists have to be aware that methamphetamine use disorders can be found in all occupations, including prostitutes.

Lesbian, gay, bisexual and transgender (LGBT) community
This group typically uses methamphetamine at parties, leading to unsafe sex. They might use methamphetamine as a recreational drug as a release from social pressures or emotional problems. Therapists should take seriously issues related to sexually transmitted diseases and prevention, such as job placement and family acceptance. Professionals have to respect patients for who they are, and allow them their rights.

Patients with HIV/AIDS
Patients in this group are more prone to risky behavior, and must take antiretroviral drugs. Physical comorbidities are usually pulmonary tuberculosis, meningitis, and opportunistic infections, while psychiatric comorbidities are depression and anxiety disorders.

Therapists should maintain a neutral and non-judgmental attitude, and keep patients’ data confidential. Therapists also need to know about the treatment of HIV, the use of antiretroviral drugs, and the prevention of transmission of the virus through risky behavior.
Women

Methamphetamine use is becoming more popular among women. Comorbid depression is usually found. Other related problems, such as domestic violence, should be assessed and resolved. Lactation, child care and child safety are other issues of concern for mothers who have to take care of their children.

Geriatric patients

Evidence on methamphetamine use in geriatric patients is limited due to the low number of patients in this group. The characteristics of users, amount of use, reasons for use, and comorbidities are unknown. Hence no treatment suggestions are available for geriatric methamphetamine users. From current knowledge based on other common substances such as alcohol, comorbidities usually found are anxiety and depressive disorders. The assessment should cover those disorders.

Further research is needed on specific groups of methamphetamine users, such as adolescents, people of working age, patients with HIV/AIDS, the LGBT community, women, and the elderly.
Implications for a Thai context

The substance treatment service system in Thailand is compound, with many organizations both inside and outside the Ministry of Public Health. Organizations within the Ministry of Public Health are divided into two groups, based on complications and severity of addiction. Hospitals under the Office of the Permanent Secretary for Public Health are responsible for mild addiction cases or cases without complications, which constitute the majority of cases (70–80%). Chronic relapsing cases or cases with comorbidities are referred to hospitals under the Department of Medical Services and the Department of Mental Health. Organizations outside the Ministry of Public Health such as the Department of Probation and Prisons take care of cases with a criminal history. Providing a comprehensive treatment system with a clear management structure – i.e. specific assignments and a special budget to run the system with strong executive support, and placing the drug epidemic as a national agenda item for every government department – will generate continuity of care, especially in this era of a serious drug epidemic.

Table 3 Treatment of methamphetamine use disorders in each level of care, according to the government-sponsored service plan

<table>
<thead>
<tr>
<th>Level of care</th>
<th>Targeted patients</th>
<th>Process efficiency</th>
<th>Tools</th>
<th>Professional efficiency</th>
</tr>
</thead>
</table>
| Primary hospitals | - Users  
- Recovering patients after discharge from secondary (or higher) level of care  
- Minimum risk groups | - Patient assessment, categorizing patients into groups, and properly referring them to a higher level of care  
- Psychiatric comorbidity screening  
- Preparing patients before entering the treatment process  
- Primary treatment with Brief Advice (BA) and Brief Intervention (BI)  
- Aftercare process  
- Proactive prevention Through community networks such as | - Alcohol, Smoking and Substance Involvement Screening Test (ASSIST)  
- Depression screening with 2Q and 9Q tools (see Resource Page 2, 7.2 7.3)  
- Suicide assessment with 8Q tool (see Resource Page 2, 8.3)  
- BA and BI manuals | Nurses or staff who complete assessment, Brief Advice (BA) and Brief Intervention (BI) courses |
<table>
<thead>
<tr>
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<th>Process efficiency</th>
<th>Tools</th>
<th>Professional efficiency</th>
</tr>
</thead>
</table>
| Secondary hospitals | - Abusers  
- Addictive patients without complications who are referred back from large secondary and tertiary hospitals  
- Patients in the probation system  
- Treatment without detention | - Methamphetamine intoxication treatment  
- Completion of four care processes by undergoing detoxification and rehabilitation without admission to a hospital  
- Aftercare process  
- Coordinating the process with temples, communities and schools  
- Following harm reduction concept | - BA, BI, Motivational Interviewing or Motivational Enhancement Therapy (MI/MET), Cognitive Behavioral Therapy (CBT), and Matrix manuals for abusers  
- Randomized urine drug test, as stated in the treatment plan | - Physicians who complete a substance treatment course  
- Nurses who specialize in substance abuse and addiction, or psychiatry |
| Large secondary hospitals | - Dependent patients with no severe physical and psychiatric comorbidities  
- Patients in the probation system (without detention) | - Completion of four care processes  
- Inpatient detoxification  
- Outpatient rehabilitation  
- Aftercare  
- Following harm reduction concept in epidemic areas | - MI, CBT, Matrix Program, interpersonal and family counseling  
- Randomized urine drug test, as stated in the treatment plan | - Psychiatrists or physicians who complete a substance treatment course  
- Nurses who specialize in substance abuse and addiction, or psychiatry  
- Clinical psychologists and/or social workers  
- Staff who |
### Level of care

<table>
<thead>
<tr>
<th>Targeted patients</th>
<th>Process efficiency</th>
<th>Tools</th>
<th>Professional efficiency</th>
</tr>
</thead>
</table>

- Specialized hospitals under the Department of Mental Health, or Thanyarak group hospitals under the Department of Medical Services
  - Addiction group with severe psychiatric comorbidities or severe social problems
  - Patients who require inpatient rehabilitation
  - Patients in the probation system with non-strict detention
  - Completion of four care processes – both inpatient and outpatient programs (hospitals under the Department of Mental Health are responsible for cases with severe psychiatric comorbidities who require admission)
  - **OPD**: Matrix Program, Satir Model, MI, CBT, Twelve-Step Facilitation (TSF)
  - **IPD**: FAST Model, Satir Model, Case Management, MI, CBT, PMK Model, TSF
  - Psychiatrists or physicians who complete a substance treatment course
  - Nurses who specialize in substance abuse and addiction or psychiatry
  - Nurses with a master’s degree in addiction or psychiatry
  - Multidisciplinary team (physician, nurse, clinical psychologist, occupational therapist and social workers)

- There should be comprehensive cooperation between organizations inside and outside the Ministry of Public Health.
- System management should be concerned with efficiency of each level of care, including process, tools, professional competence, and budget.
- An effective referral system without any gaps needs to be developed.
References


Assessment, screening and diagnosis for methamphetamine use disorders

Assessment, screening and diagnosis for methamphetamine (MA) use disorders is an important step of the treatment process, after the interview, physical examination and laboratory testing. With patients who can give interviews and are cooperative, MA abuse or dependence can be diagnosed initially by using the interviewing guidelines and physical examination following the diagnostic criteria of DSM-IV (diagnostic criteria for MA abuse and diagnostic criteria for MA dependence). DSM-5 diagnostic criteria can also be used, including substance abuse criteria and substance dependence criteria together. These two disorders, substance abuse and substance dependence, have two criteria in common – the impact of substance use, and the client still using the substance – but they have different levels of severity (a single disorder of graded clinical severity). Assessment, screening and diagnosis for MA use disorders also includes a laboratory evaluation.

The concept of assessment and screening for methamphetamine (MA) use disorders

Assessment and screening for MA use disorders uses the same concepts as for other substance use disorders. The purposes of assessment and screening are:

- To classify clients with substance-related disorders by screening clients into three groups:
  1. Risky group
  2. Abuse group
  3. Dependence group

- To provide an appropriate treatment plan or referral for clients with substance-related disorders

In assessment and screening, information should be collected from multiple sources, using appropriate techniques such as interviewing, observation, and laboratory testing. The sources of information should be parents, family members, friends and neighbors. The screening can classify clients by using screening tools for substance-related disorders.

Important information for substance-related disorders assessment

Assessment of substance-related disorders should include the following important client information:

- Demographic data: including age, occupation, income, education, parenting, childhood development, lifestyle, study/work-related issues, personal hygiene, image of self and others, and awareness about substance abuse. Criminal or legal history should also be included.

- History of physical and mental illness: physical and mental illnesses, such as schizophrenia, depression, and physical disabilities, can be important factors in the development of substance-related disorders.
Recommendations for Health Care Providers in the Treatment of Methamphetamine Use Disorders

- Family history: including family pattern (nuclear/extended); socioeconomic status; relationship among the family members; supporting family members or members whom client loves and respects; inherited disorders in the family (physical and psychiatric disorders); and perceptions, knowledge and attitudes of family members about substance abuse. History of substance use in the family should also be included.

- Social and environmental data: including groups of good and bad friends; school and neighborhood; and policy on control and prevention of substance use in the community in which the client lives. We have found that clients who live in areas with a high prevalence of substance use are difficult to treat. A community with a low prevalence of substance use and a good policy on control and prevention of substance use is a protective factor, and helps clients engage in treatment and in ongoing abstinence from substance use.

- Substance use history: including drugs of choice; routes of administration; frequency of use; polysubstance use history; reasons for using drugs; age at first substance exposure; impact of substance; previous attempts to quit drugs; past history of treatment; and whether convicted of substance abuse.

- Symptoms or current problems: including physical and psychological symptoms; thought and perception disorder; awareness about substance abuse; intention or motivation to quit drugs; context of today’s lifestyle; and risk behaviors. Vital signs – i.e. body temperature, pulse rate, respiratory rate and blood pressure, with information on height and weight – should also be included. A mental status examination should be performed as necessary.

Sources for gathering information for substance-related assessment

Resources from clients and families are used in assessment. For example:

- Official structured assessment for SUD
- Alcohol, Smoking and Substance Involvement Screening Test (ASSIST)
- Stage of change
- Psychological issues
- Interviews with family and friends
- Physical examination and mental status examination
- Laboratory results
- Report from Department of Probation or police officer
Screening and diagnostic criteria

Alcohol, Smoking and Substance Involvement Screening Test (ASSIST)

ASSIST is a brief screening tool that has been developed by World Health Organization researchers and addiction-specialist physicians from many countries to respond to health problems as a result of the worldwide impact of psychoactive substance use. ASSIST is used for screening substances that are likely to cause addiction or negative consequences on health, for classification of severity of dependence, and for providing the appropriate intervention for each degree of severity.

The ASSIST questionnaire consists of 8 questions, and may take about 10 minutes to complete, including a follow-up interview. This screening is designed for use in primary health care units, where a client with a high risk of substance use or substance abuse is often overlooked, i.e. a client whose substance use problem is not considered to be enough of a concern for enrollment in treatment until the client’s health condition has deteriorated.

ASSIST is used for gathering information from clients about substance use in their lifetime, including substance abuse and related problems in the past 3 months. It also indicates problems related to substance use, including acute symptoms or intoxication, regular use of drugs, high risk of using drugs, or the use of injectable drugs.

ASSIST can also be used in social services and probably can be used in other settings as well (juvenile detention center, prison or factory). ASSIST has been successfully tested in many countries and different cultures around the world. ASSIST could also be used to screen for other substances: tobacco products, alcoholic beverage, marijuana, cocaine, amphetamine-type stimulant, sedatives or sleeping pills, hallucinogens, volatile compounds, opioids and other drugs.

ASSIST gives a score on the risk of substance abuse, which can be used for discussion with clients about their use of drugs (Brief Intervention). The scores for substance abuse are classified into risk level groups: lower, moderate and high. An appropriate level of care can then be provided for each risk level.
ASSIST questionnaire

Q1: In your life which of the following substances have you ever used (non-medical use only)?
Q2: In the past 3 months how often have you used the substances you mentioned?
Q3: During the past 3 months how often have you had a strong desire or urge to use (drug)?
Q4: During the past 3 months how often has your use of (drug) led to health, social, legal or financial problems?
Q5: During the past 3 months how often have you failed to do what was normally expected of you because of your use of (drug)?
Q6: Has a friend or relative or anyone else ever expressed concern about your use of (drug)?
Q7: Have you ever tried to cut down or stop using (drug) but failed?
Q8: Have you ever used any drug by injection?

These 8 questions suggest the level of risk associated with substance use by clients. It indicates the risk of substance abuse with harmful consequences (in the present day or the near future) if client continue to use drugs in this pattern.

How to administer the ASSIST questionnaire

ASSIST can be used alone or with other tools or questionnaires as part of a general health evaluation, health risk evaluation or history of illness. Most clients who are evaluated will give true answers about substance use issues if the health care personnel:
- Show that they are listening to the client’s story
- Are polite and non-judgmental
- Have empathy for the client
- Give information about the screening tool
- Indicate that the client’s information is confidential

Scoring of ASSIST

- Give scores for Q2–Q7 (not including Q1 and Q8)
Table 4  ASSIST risk score and associated risk level and intervention

<table>
<thead>
<tr>
<th>Alcohol</th>
<th>All other substances</th>
<th>Risk level</th>
<th>Intervention</th>
</tr>
</thead>
<tbody>
<tr>
<td>0–10</td>
<td>0–3</td>
<td>Lower risk</td>
<td>General health advice</td>
</tr>
</tbody>
</table>
| 11–26   | 4–26                 | Moderate risk | - Brief Intervention  
|         |                      |            | - Take-home booklet and information |
| 27+     | 27+                  | High risk  | - Brief Intervention  
|         |                      |            | - Take-home booklet and information  
|         |                      |            | - Referral to specialist for assessment and treatment |
| Injected drugs in last 3 months | Moderate and high risk | - Risks of injecting information card  
|                                   |            | - Brief Intervention  
|                                   |            | - Take home booklet and information  
|                                   |            | - Referral to testing for blood-borne viruses (e.g. HIV, hepatitis B and C)  
|                                   |            | - Referral to specialist for assessment and treatment |

**Diagnosis of MA dependence**

Diagnostic criteria for MA dependence are divided into two systems: ICD and DSM-IV. ICD-10 diagnosis is conducted by WHO and DSM is conducted by the American Psychiatric Association, with the latest version of DSM-5 published in 2013. In Thailand, these two systems are both used.
Table 5  Diagnostic criteria for MA dependence

<table>
<thead>
<tr>
<th>ICD-10</th>
<th>DSM-IV</th>
<th>DSM-5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Harmful use</td>
<td>Abuse</td>
<td>Substance use disorder</td>
</tr>
<tr>
<td>1. A pattern of psychoactive substance use that is causing damage to health. The damage may be physical (as in cases of hepatitis from self-administration of injected drugs) or mental (e.g. episodes of depressive disorder secondary to heavy consumption of alcohol)</td>
<td>1. Recurrent substance use resulting in a failure to fulfill major role obligations at work, school or home (e.g. repeated absences or poor work performance related to substance use; substance-related absences, suspensions or expulsions from school; neglect of children or household)</td>
<td>1. Recurrent substance use resulting in a failure to fulfill major role obligations at work, school or home (e.g. repeated absences or poor work performance related to substance use; substance-related absences, suspensions or expulsions from school; neglect of children or household)</td>
</tr>
<tr>
<td></td>
<td>2. Recurrent substance use in situations in which it is physically hazardous (e.g. driving an automobile or operating a machine when impaired)</td>
<td>2. Recurrent substance use in situations in which it is physically hazardous (e.g. driving an automobile or operating a machine when impaired)</td>
</tr>
<tr>
<td></td>
<td>3. Recurrent substance-related legal problems (e.g. arrests for substance-related disorderly conduct)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>4. Continued substance use despite persistent or recurrent social or interpersonal problems caused or exacerbated by the effects of the substance (e.g. arguments with spouse about consequences of intoxication, physical fights)</td>
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</tr>
<tr>
<td>ICD-10</td>
<td>DSM-IV</td>
<td>DSM-5</td>
</tr>
<tr>
<td>--------</td>
<td>--------</td>
<td>-------</td>
</tr>
<tr>
<td><strong>Dependence</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Evidence of tolerance, such that increased doses of the psychoactive substance are required in order to achieve effects originally produced by lower doses (Note: clear examples of this are found in alcohol- and opiate-dependent individuals who may take daily doses sufficient to incapacitate or kill non-tolerant users)</td>
<td>1. Tolerance, as defined by either of the following: &lt;br&gt; a) A need for markedly increased amounts of the substance to achieve intoxication or desired effect &lt;br&gt; b) Markedly diminished effect with continued use of the same amount of the substance</td>
<td>4. Tolerance, as defined by either of the following: &lt;br&gt; a) A need for markedly increased amounts of the substance to achieve intoxication or desired effect &lt;br&gt; b) Markedly diminished effect with continued use of the same amount of the substance (Note: tolerance is not considered for those taking medications under medical supervision, e.g. analgesics, antidepressants, anti-anxiety medications or beta-blockers)</td>
</tr>
<tr>
<td>2. A physiological withdrawal state when substance use has ceased or been reduced, as evidenced by: the characteristic withdrawal syndrome for the substance; or use of the same (or a closely related) substance with the intention of relieving or avoiding withdrawal symptoms</td>
<td>2. Withdrawal, as manifested by either of the following: &lt;br&gt; a) The characteristic withdrawal syndrome for the substance &lt;br&gt; b) The same (or a closely related) substance is taken to relieve or avoid withdrawal symptoms</td>
<td>5. Withdrawal, as manifested by either of the following: &lt;br&gt; a) The characteristic withdrawal syndrome for the substance (refer to Criteria A and B in DSM-5 for withdrawal from specific substances) &lt;br&gt; b) The same (or a closely related) substance is taken to relieve or avoid withdrawal symptoms</td>
</tr>
</tbody>
</table>
### Recommendations for Health Care Providers in the Treatment of Methamphetamine Use Disorders

<table>
<thead>
<tr>
<th>ICD-10</th>
<th>DSM-IV</th>
<th>DSM-5</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>(Note: withdrawal is not considered for those taking medications under medical supervision, e.g. analgesics, antidepressants, anti-anxiety medications or beta-blockers)</td>
</tr>
</tbody>
</table>

3. **A strong desire or sense of compulsion to take the substance**

3. The substance is often taken in larger amounts or over a longer period than was intended

6. The substance is often taken in larger amounts or over a longer period than was intended

4. **Persisting with substance use despite clear evidence of overtly harmful consequences, such as harm to the liver through excessive drinking, depressive mood states consequent to periods of heavy substance use, or drug-related impairment of cognitive functioning; efforts should be made to determine that the user was actually, or could be expected to be, aware of the nature and extent of the harm**

4. There is a persistent desire or unsuccessful efforts to cut down or control substance use

7. There is a persistent desire or unsuccessful efforts to cut down or control substance use

5. **Difficulties in controlling substance-taking behavior in terms of its onset, termination, or levels of use**

5. A great deal of time is spent on activities necessary to obtain the substance (e.g. visiting multiple doctors or driving long distances), use the substance (e.g. chain-

6. Progressive neglect of alternative pleasures or

8. A great deal of time is spent in activities necessary to obtain the substance, use the substance, or recover from its effects
<table>
<thead>
<tr>
<th>ICD-10</th>
<th>DSM-IV</th>
<th>DSM-5</th>
</tr>
</thead>
<tbody>
<tr>
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<td></td>
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</tr>
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<td>8. A great deal of time is spent in activities necessary to obtain the substance, use the substance, or recover from its effects</td>
</tr>
<tr>
<td>6. Progressive neglect of alternative pleasures or</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
ICD-10 | DSM-IV | DSM-5
---|---|---
Interests because of psychoactive substance use, or increased amount of time necessary to obtain or take the substance or to recover from its effects | Smoking, or recover from its effects | 

| 6. Important social, occupational or recreational activities are given up or reduced because of substance use | 9. Important social, occupational or recreational activities are given up or reduced because of substance use |

| 7. The substance use is continued despite knowledge of having a persistent physical or psychological problem that is likely to have been caused or exacerbated by the substance (e.g. current cocaine use despite recognition of cocaine-induced depression, or continued drinking despite recognition that an ulcer was made worse by alcohol consumption) | 10. The substance use is continued despite knowledge of having a persistent or recurrent physical or psychological problem that is likely to have been caused or exacerbated by the substance |

| 11. Craving or a strong desire or urge to use a specific substance |

**Specifications for current severity (DSM-5)**

<table>
<thead>
<tr>
<th>Severity</th>
<th>Criteria</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mild</td>
<td>Presence of 2–3 symptoms</td>
</tr>
<tr>
<td>Moderate</td>
<td>Presence of 4–5 symptoms</td>
</tr>
<tr>
<td>Severe</td>
<td>Presence of 6 or more symptoms</td>
</tr>
</tbody>
</table>
Specifications

In early remission: after full criteria for substance use disorder were previously met, none of the criteria for substance use disorder have been met for at least 3 months but for less than 12 months (with the exception that criterion A4 from DSM-5, craving or a strong desire or urge to use a specific substance, may be met).

In sustained remission: after full criteria for substance use disorder were previously met, none of the criteria for substance use disorder have been met at any time during a period of 12 months or longer (with the exception that criterion A4, craving or a strong desire or urge to use substance, may be met).

On maintenance therapy: this additional specifier is used if the individual is taking a prescribed agonist medication such as methadone or buprenorphine and none of the criteria for substance use disorder have been met for that class of medication (except tolerance to or withdrawal from the agonist). This category also applies to those individuals being maintained on a partial agonist, an agonist/antagonist, or a full antagonist such as oral naltrexone or depot naltrexone.

In a controlled environment: this additional specifier is used if the individual is in an environment where access to the substance is restricted.

- ASSIST is a standard assessment tool for risk evaluation of substance use. Training is necessary before using ASSIST.
- MA dependence is diagnosed by ICD-10, DSM-IV or DSM-5 criteria.

Laboratory assessment

General evaluation

For evaluation of general health condition, including malnutrition or co-occurring disorder, which can be found in an immunocompromised host:
- Complete blood count (CBC) with platelets
- Urine analysis
- Chest X-ray

Specific evaluation for MA in the body

MA in the body can be tested from blood, urine, hair, saliva, or nail clippings. A urine test is the most appropriate exam for finding MA in the body because it is easy to collect the sample; also, the amount of the substance and its derivatives is larger in urine, and the duration that MA can be found in urine is longer than in the blood. There are many factors related to finding MA in urine: pharmacokinetics of MA, client’s body mass, frequency of use (regular or occasional use), acid/base of urine, and last use of MA. The period of time that MA can be found in urine is 48 hours from last use. There are three analytical techniques that are commonly used in MA testing:
1. **Drug scan chemical color reaction (CCR)**

MA in urine will interact with testing chemical and change the urine color from yellow to reddish-purple. An example of this technique is the test by the Department of Medical Sciences. Specificity is 60–85%.

2. **Immunoassay**

This is widely used for initial screening. It can detect many samples at one time in a short period of time. It is in the form of a strip test, and tool kits can be used at home or at a clinic. Specificity is 95%. A limitation of this technique is that false positive results can occur, so accurate testing will require the use of more specific techniques.

3. **Gas chromatography–mass spectrometry (GC-MS)**

GC-MS is the standard technique for substance evaluation in the body. Because it is more accurate, with 97% specificity, substances can be found even in small amounts. It can detect MA use in the past 90 days from a 1.5-inch-long hair sample. Limitations of this technique include: a longer period of time is necessary for analysis; an expert technician is required; and there are high costs of analysis and maintenance.

A urine sample is a good method for detecting substances in the body. But a contaminated sample or diluted urine can interfere with the result, causing a false negative which indicates that MA was not found. When collecting the urine sample, urine characteristics (e.g. color and temperature) should be recorded. Diluted urine may cause a lower temperature of urine than usual, which can be detected by touching. A normal urine sample is still warm (33 ºC) 15 minutes after collecting. If the urine temperature is equal to room temperature, diluted urine or using another person’s urine should be suspected.

Not only urine temperature is used; urine specific gravity, acid/base, and urine creatinine are also used for detecting diluted urine. Normally urine coloration is tea-like color to yellow, but other colors can be found depending on food, medication, or certain medical conditions. If urine acid/base is less than pH 3 or more than pH 11 and urine specific gravity is less than 1.002 or more than 1.020, contaminated urine should be suspected. Urine creatinine normally is more than 20 mg/dl. If urine creatinine is less than 20 mg/dl, contaminated urine should be suspected. If urine creatinine is less than 5 mg/dl, it indicates that the sample is not human urine.

**Table 6  False positives**

<table>
<thead>
<tr>
<th>Medications</th>
<th>Medical conditions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chlorpheniramine</td>
<td>Sample contains lactate dehydrogenase or lactate</td>
</tr>
<tr>
<td>Codeine</td>
<td>Patient with lactic acidosis, diabetes mellitus or liver disease, or ingesting toxins such as ethanol, methanol or salicylate</td>
</tr>
<tr>
<td>Dextromethorphan</td>
<td></td>
</tr>
<tr>
<td>Pseudoephedrine</td>
<td></td>
</tr>
<tr>
<td>Phenylpropanolamine</td>
<td></td>
</tr>
<tr>
<td>Psychotropic drugs: imipramine, amitriptyline, chlorpromazine, methylphenidate</td>
<td></td>
</tr>
<tr>
<td>Antimalarial drugs: quinine/quinidine</td>
<td></td>
</tr>
<tr>
<td>Oral anorexiant</td>
<td></td>
</tr>
</tbody>
</table>
Recommendations for Health Care Providers in the Treatment of Methamphetamine Use Disorders

- MA in urine can be detected 24–48 hours after last use.
- False positive results can be found in clients taking certain medications such as codeine, chlorpheniramine, oral anorexiant, etc.

References

Resource Page 2

Urgency management for methamphetamine use disorders

Initial assessment and management for MA use disorders consist of guidelines for emergency management in MA use disorders (Diagram 4), assessment and management for MA overdose (Diagram 5), and assessment and management for aggressive and suicidal behavior in MA use disorders (Diagram 6).

The objectives of assessment and initial management of MA use disorders is to provide clients safety from physical and mental harm and to provide health professionals safety in treatment of MA use disorders. Details and levels of management depend on hospital competency. Initial management is mental and physical disorder management, consisting of:

1. Initial preparation
2. Initial assessment
3. Emergency management
4. Management for MA intoxication and overdose
5. Management for MA withdrawal state
6. Management for MA-induced psychotic disorders
7. Management for MA-induced depressive disorders

1. Initial preparation

1.1 Things to do for health professionals in assessment of the client
   1. Know client’s information as much as possible before the session
   2. Allow well-trained professionals to restrain the client, if necessary
   3. Realize the risks and severity that can occur in a given situation
   4. Observe the surrounding environment, such as exits and objects in the room
   5. Perform the assessment with a colleague, not alone
   6. Let other staff stay in the nearby area
   7. Try to build a therapeutic relationship with the client (avoid confrontation and threatening behavior)
1.2 Precautions for dangerous or violent situations that may occur

1. Prevent client from hurting himself or suicidal behavior by intervention as needed to avoid client injury.

2. Prevent client from hurting others by using brief assessment of violence. If obvious risk is found, follow these guidelines:
   1. Inform the client that violence is unacceptable
   2. Approach the client in a non-threatening manner
   3. Calmly reassure the client and perform reality testing on the client
   4. Offer medication
   5. Inform the client that restraint and seclusion will be used as needed
   6. Staff members are standing by, ready to restrain
   7. If the client is restrained, close observation is used and vital signs are monitored. Separate the restrained client from arousing stimuli. A treatment plan is provided, especially pharmacological treatment, assessment of medical condition, and giving information to client and relatives.

2. Initial assessment

2.1 Assessment and prediction of aggressive behavior

1. Warning signs of impending violence
   - Recent violent act such as delinquent behavior
   - Verbal threats or behavior
   - Carrying a weapon or object such as a fork or ashtray
   - Increased psychomotor agitation
   - Alcohol or drug intoxication
   - Paranoid delusions or auditory hallucinations (voice commands)
   - Organic mental disorders such as brain pathology, lesion in frontal lobe or temporal lobe
   - Catatonic excitement, mania, agitated depression
   - Personality disorder with impending violent behavior and poor impulse control

2. Assessment of risk severity
   - Assessment of violence: client’s thoughts, purpose, intention, planning, meaning of behavior, following a plan, seeking help
   - Demographic data, e.g. male, age 15–24, low socioeconomic status, lack of social support
   - Past history, e.g. violent behavior, antisocial behavior, poor impulse control (gambling, substance use, suicidal behavior or psychotic symptoms)
   - Overt stressors, e.g. marital conflict, real or symbolic loss
Criteria for violent behavior in clients

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Detail</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Hostile manner, loud voice, use of rude words</td>
</tr>
<tr>
<td>2</td>
<td>Paranoid ideas, auditory hallucinations</td>
</tr>
<tr>
<td>3</td>
<td>Poor self-control, mood swings, impulsivity</td>
</tr>
<tr>
<td>4</td>
<td>Bossy behavior</td>
</tr>
<tr>
<td>5</td>
<td>Substance craving</td>
</tr>
<tr>
<td>6</td>
<td>Agitation, fidgeting or poor concentration</td>
</tr>
</tbody>
</table>

Evaluation criteria

<table>
<thead>
<tr>
<th>Severity</th>
<th>Criteria</th>
</tr>
</thead>
<tbody>
<tr>
<td>Severe</td>
<td>Presence of criteria from criteria 1, 2 or 3</td>
</tr>
<tr>
<td>Moderate</td>
<td>Presence of at least two criteria from criteria 4, 5 and 6</td>
</tr>
<tr>
<td>Mild</td>
<td>Presence of at least one of the criteria from criteria 4, 5 and 6</td>
</tr>
</tbody>
</table>

2.2 Evaluation of medical condition

- Vital signs
- Blood glucose
- Blood oxygen
- Orientation to time, place and person

2.3 Evaluation of psychiatric condition

- Psychotic symptoms such as auditory or visual hallucinations and paranoia
- Irritable mood and violent behavior
- Depression
- Risk of suicidal behavior
- Risk of homicidal behavior
3. **Emergency management**

3.1 **Initial management of medical condition**

When the client arrives at the emergency room, the first emergency team should try to determine the cause of illness. The most important thing is assessment and initial management by using Basic Life Support.

3.2 **Management of severe psychiatric disorders**

Indications for pharmacological treatment are violent behavior and severe anxiety or panic attack. If the client receives medication, vital signs such as blood pressure should be monitored closely.

Medications for brief episodes of violent behavior are haloperidol (Haldol), beta-adrenergic receptor antagonists (beta-blockers), carbamazepine (Tegretol) and lithium.

The cause of violent behavior may be from epilepsy. Clinical information should be used for diagnosis and evaluation of seizure cause.

- Haloperidol 5–10 mg may be given orally or intramuscularly every 30 minutes to 1 hour until the client can calm down.

- Benzodiazepines, e.g. diazepam (valium) 5–10 mg may be given intravenously (slow push) every 2 minutes. Respiratory depression should be monitored.

- If the client does not respond or has a history of allergy to antipsychotic drugs or benzodiazepines, alternative drugs such as diphenhydramine (Benadryl) 50–100 mg should be given orally or intramuscularly.

3.3 **Supportive psychotherapy**

The purpose of psychological treatment is helping the client with empathy. The therapist should avoid a negative attitude or sympathy, and help the client by respecting his individual rights. No treatment is appropriate for everyone in the same situation. If the therapist does not know what to say, the best thing to do is listen to the client and make the client feel that the therapist is on the client’s side. Violent behavior should be monitored and assessed. Psychoeducation about biological causes of violent behavior can relieve stress for client and relatives.

3.4 **Restraint**

Restraint will be used when the client is a danger to self or others, and when the danger cannot be controlled by other methods. Restraint of the client will be temporary until medication can be given. If medication cannot be used, restraint will be needed for a longer period. Primarily, the client is expected to calm down after restraint is used.
Steps of restraint:

1. Use 4 or 5 persons with restraint experience. The instrument must be safe.
2. Explain to the client why the restraint is being used.
3. A client who is restrained should be monitored closely by the staff team. Building up the client’s confidence can relieve the client from fear, hopelessness, weakness, and feeling of losing control.
4. Arrange the client’s posture by restraining the legs separately; tie one arm to the body and the other arm over the head.
5. If necessary, intravenous fluid should be administered.
6. Client’s head should be lifted up slightly to help the client feel more comfortable and prevent aspiration.
7. Close monitoring should be provided to make sure that the client is safe and comfortable.
8. After restraint, psychological treatment should be started.
9. Even though the client is restrained, most clients will be given an antipsychotic drug.
10. If the client calms down, the extremities should be untied one by one every 5 minutes. If only either two arms or two legs are tied, release either arms or legs together at the same time.
11. Documents should be recorded regularly concerning the reason for restraint, the treatment given, and treatment response during restraint.

- Staff should always be ready to use restraint when managing MA psychosis.
- Assessment of warning signs of violence should be done before treatment is given.
- Basic Life Support is used for urgent management of medical conditions.
- Treatment of severe psychiatric disorders should include both pharmacological and psychological treatment, following treatment indications. Restraint should be used only if necessary.
Table 7  Signs and symptoms of MA intoxication and overdose

<table>
<thead>
<tr>
<th>Organ system</th>
<th>Signs and symptoms</th>
<th>Differential diagnosis</th>
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<td>Cardiovascular system</td>
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<td>- Myocardial infarction</td>
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<td></td>
<td>- Palpitations, irregular pulse rate</td>
<td>- Severe hypertension</td>
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<td></td>
<td>- Heart failure</td>
<td>- Supraventricular tachycardia</td>
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<td></td>
<td>- High or low blood pressure</td>
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<tr>
<td></td>
<td></td>
<td>- Aortic dissection</td>
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<td>Neurological and autonomic nervous system</td>
<td>- Headache</td>
<td>- Neuropsychiatric syndrome</td>
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<td></td>
<td>- Nausea and vomiting</td>
<td>- Seizure</td>
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<tr>
<td></td>
<td>- Seizure</td>
<td>- Cerebral infarction or hemorrhage</td>
</tr>
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<td></td>
<td>- Loss of consciousness</td>
<td>- Coma</td>
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<td></td>
<td>- Tremor, abnormal movement</td>
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<td></td>
<td>- Hot flashes</td>
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<td></td>
<td>- Agitation</td>
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<tr>
<td>Respiratory system</td>
<td>- Increased respiratory rate</td>
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<td>- Dyspnea</td>
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<td>Gastrointestinal system</td>
<td>- Loss of appetite</td>
<td>- Hyperactive bowel movement</td>
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<td></td>
<td>- Diarrhea</td>
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<tr>
<td></td>
<td>- Abdominal pain</td>
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<tr>
<td>Other systems</td>
<td>–</td>
<td>- Hyperthermia</td>
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<td></td>
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<td>- Rhabdomyolysis</td>
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<td></td>
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<td>- Electrolyte imbalance</td>
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<td>- Metabolic acidosis</td>
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<td>Mental health</td>
<td>- Auditory or visual hallucinations</td>
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<td>- Paranoid</td>
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<td>- Depression, suicidal behavior</td>
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<tr>
<td></td>
<td>- Aggressive behavior</td>
<td></td>
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<tr>
<td></td>
<td>- Mood swings</td>
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</tbody>
</table>
4. Conclusions

Warning signs of MA overdose are:
- Chest pain
- Increased blood pressure rapidly or poor controlled high blood pressure
- Seizure
- Psychiatric symptoms such as hallucinations, paranoid delusions
- Behavioral change that may cause harm to self and others

Laboratory testing
- Complete blood count
- Liver function test
- Blood sugar
- Urine analysis
- Blood urea nitrogen (BUN), creatinine, electrolytes
- Electrocardiogram
- Total creatine kinase
- Chest X-ray

5. Methamphetamine withdrawal state

Client may have withdrawal symptoms 24 hours after last use of MA. The symptoms can last for one week. Clients with older age, longer period of MA use, or more severe MA dependence may experience greater severity of MA withdrawal symptoms, as measured by the self-rated questionnaire, Amphetamine Withdrawal Questionnaire Version 2 (Appendix 5.3).

Withdrawal symptoms can be divided into two phases:

1. Acute phase
   - Duration of 1 week after last use of MA
   - Common symptoms are hypersomnia and increased appetite
   - Common depressive symptoms are decreased psychomotor activity, fatigue, restricted affect, and dysphoria
   - Other less severe symptoms are anxiety, agitation, realistic dreams, craving, poor concentration, irritability, and motor retardation

2. Subacute phase
   - Duration of 2–3 weeks after the acute phase
   - Common symptoms are hypersomnia and increased appetite
   - Bradycardia may be found
5.1 DSM-IV diagnostic criteria for stimulant withdrawal
   A. Cessation of (or reduction in) amphetamine (or a related substance) use that has been heavy and prolonged.
   B. Dysphoric mood and two (or more) of the following physiological changes, developing within a few hours to several days after Criterion A:
      1. fatigue
      2. vivid, unpleasant dreams
      3. insomnia or hypersomnia
      4. increased appetite
      5. psychomotor retardation or agitation
   C. The symptoms in Criterion B cause clinically significant distress or impairment in social, occupational, or other important areas of functioning.
   D. The symptoms are not due to a general medical condition and are not better accounted for by another mental disorder.
      Specify substance that is causing withdrawal symptoms: methamphetamine, cocaine, or other stimulants.
      Anhedonia and craving can be found during stimulant withdrawal.

5.2 Management of MA withdrawal
   Depression, suicidal ideas or behavior should be monitored. A literature review found that no pharmacological treatment is effective for MA withdrawal. Medications such as benzodiazepine, antipsychotics and antidepressants will be used for symptomatic treatment. There have been two randomized controlled trials (RCT) comparing mirtazapine and a placebo in treatment of MA withdrawal. One RCT found that mirtazapine can reduce anxiety and hyperarousal symptoms from MA withdrawal, but the other RCT found that the effectiveness of mirtazapine for treatment of MA withdrawal is not significantly different compared with a placebo.

6. MA-induced psychotic disorder – history, signs and symptoms
   - History of MA or other stimulant use in the 1 month prior to developing psychotic symptoms
   - Paranoid delusions
   - Auditory or visual hallucinations
   - Aggressive behavior
   - Other, e.g. poor concentration, agitation, confusion, anxiety, etc.

6.1 Laboratory investigation
   Test for drugs in the body for differential diagnosis between primary psychotic disorder or MA-induced psychotic disorder.
6.2 Indications for hospitalization

- Risk of homicide
- Risk of suicide
- Poor self-care or severely disorganized behavior
- Risk of injury from accident

6.3 Treatment

The purpose of urgent treatment is to calm the client down by using benzodiazepines, which are more effective than other sedative medications. Antipsychotic drugs will be given if benzodiazepines are not effective in some clients. Antipsychotic drugs can reduce psychotic symptoms, and one randomized control trial on MA-induced psychotic disorder found that olanzapine had efficacy equivalent to haloperidol in treatment for MA-induced psychosis for 4 weeks.

The choice of medication depends on the severity of symptoms, through assessment of aggressive behavior. Benzodiazepine is the first-line medication. The choices of medication to be considered are as follows:

**Mild symptoms:** diazepam 5–10 mg, or clonazepam 0.5–2.0 mg, or or lorazepam 1.0–2.5 mg, given orally every 30–60 minutes. Haloperidol 2.5–5.0 mg or or olanzapine 5–10 mg will be given orally after benzodiazepine if symptoms are not relieved.

**Moderate symptoms:** diazepam 5–10 mg, given intravenously every 30–60 minutes. Haloperidol 2.5–5.0 mg (intravenously) or olanzapine 5–10 mg (intramuscularly) will be given after benzodiazepine if symptoms are not relieved.

**Severe symptoms:** diazepam 15–20 mg, given intravenously every 30–60 minutes. Haloperidol 2.5–5.0 mg (intravenously) or olanzapine 5–10 mg (intramuscularly) will be given after benzodiazepine if symptoms are not relieved.
7. MA-induced depressive disorder

MA-induced depressive disorder often occurs during the MA withdrawal period. These symptoms usually appear only for 1 week after the last use of MA. At present, no studies have been performed on MA-induced depressive disorder, and no effective medication is suggested for treatment. Depressive disorder commonly co-occurs with MA use disorder; assessment, diagnosis and treatment for depressive disorder should be done in cases of MA use disorder. Depressive disorder is correlated with the severity of MA use or MA craving, which is an effect of MA abstinence.

7.1. Signs and symptoms of depressive disorder

- Depressed mood reported by client or observed by others
- Loss of interest in things that client used to do
- Loss of appetite and weight loss, or increased appetite with weight gain
- Insomnia or hypersomnia almost every day
- Decreased psychomotor activity; slow speech and movement, but agitation can be found
- Fatigue or loss of energy almost every day
- Feelings of worthlessness or inappropriate guilt
- Poor concentration
- Thinking about death, suicidal ideas or attempts, or having a suicide plan

7.2 Assessment

- Screening by 2-item questionnaire (2Q)
- Assessment by 9-item questionnaire (9Q)

7.3 Management and referral

If the client reports symptoms on the 2-item questionnaire (for screening one or more items), interpretation of the results and psychoeducation about depression should be provided. After the 9 item questionnaire is assessed, the client should be referred to a doctor or mental health clinic, as appropriate.

*Score from 9-item questionnaire:*

\[
\begin{align*}
<7: & \quad \text{Psychoeducation on depression should be given.} \\
\geq 7: & \quad \text{Risk of suicide should be assessed by 8-item questionnaire and the client referred for further diagnosis and management by a doctor. In a district hospital or general hospital setting, bringing the caregiver along with the client for referral is advised.} \\
\geq 19: & \quad \text{Refer the client to a psychiatrist.}
\end{align*}
\]
7.4 **Criteria for hospitalization and referral**

*Indications for referral to a psychiatric hospital*
1. Suspected bipolar disorder (history of hypomanic or manic episodes and uncertain diagnosis)
2. 8Q score ≥17
3. No clinical improvement or no response to pharmacological treatment following clinical practice guidelines for depressive disorder
4. High risk for suicidal or homicidal behavior and cannot be handled by district or general hospital
5. Severe depressive disorder with psychotic features
6. Severe agitation
7. Poor self-care, or activities of daily living cannot be done by the client
8. Complicated psychosocial problems
9. Co-occurring psychiatric disorder, such as alcohol or substance use disorder

*Criteria for hospitalization* (in district hospital or general hospital setting)
1. High risk of suicidal behavior (8Q score ≥17) and referral to a psychiatric hospital is not available
2. High risk of homicidal behavior and referral to a psychiatric hospital is not available
3. 8Q score ≥13 (moderate level) and lack of close monitoring by caregiver
4. To separate the client temporarily from his/her environment, such as severe conflicts with family members or neighbors
5. Poor cooperation in treatment and failure as an OPD case
6. Client has indications for referral and close monitoring is needed, but referral to a psychiatric hospital is not available at the present time
8. Suicidal behavior

8.1 History, signs and symptoms

1. Direct signs of suicidal behavior
   - Talking about suicide or suicidal plans
   - Planning for methods of suicide, such as gun, drug overdose, etc.
   - Preparation for suicide, such as last testament, giving property to loved one, saying goodbye (suicide note)
2. In response to questioning, client reports that he/she has suicidal ideas
3. Indirect signs of suicidal behavior
   - Suicidal ideas
   - Using drugs and substances
   - Thinking that life is purposeless or that there is no reason for living
   - Chronic anxiety, agitation or sleeping problems
   - Feelings of frustration, being in the worst situation, that no solution can be found
   - Hopelessness, thinking that nothing is going to get better
   - Isolation and social withdrawal
   - Chronic feelings of anger
   - In a high-risk or unsafe situation
   - Easy irritability and rapid mood swings
4. Information from other sources, such as family medical records, indicating that client has a high risk of suicide

8.2 Assessment

- Assess by 8-item questionnaire (8Q)

8.3 Management and referral

Score from 8Q

Score 1–8: Assessment for psychiatric illness should be done, with psychosocial intervention by a counselor or well-trained mental health care personnel

Score 9–16: Psychosocial intervention should be done by solving the prioritized problem. A caregiver is needed, and should be given suggestions about appropriate care for a suicidal client. (If there is no caregiver, hospitalization should be considered.)

Score ≥17: Hospitalization should be done, with 24-hour close monitoring; or refer to a psychiatric hospital. Psychological intervention should be given for solving the prioritized problem.

Depressive disorder is assessed by a 9-item questionnaire. If score > 13, it is considered to be an emergency psychiatric condition and client should be referred to a psychiatric hospital as soon as possible.
Recommendations for Health Care Providers in the Treatment of Methamphetamine Use Disorders

8.4 Initial management
- Prevent the client from using an object that can be used as a weapon or cause harm to self and others
- Close, frequent monitoring; observe for signs of suicide
- Support the client and motivate him/her to enter a treatment program
- Bring close family members that can take care of the client to participate in observing for signs of suicide
- Use a safety card, which provides necessary information for suicidal clients such as 24-hour contact numbers for emergency, list of the nearest hospitals, staff contact numbers, other channels for family
- Provide a comprehensive treatment plan for safety if the client relapses

- Management for MA intoxication and overdose is symptomatic treatment with close monitoring.
- MA withdrawal symptoms and MA-induced depressive disorder should be assessed and the client referred for appropriate treatment.
- MA-induced psychotic disorder may result in aggression, paranoid delusions, and auditory or visual hallucinations. Risk assessment and pharmacological treatment or referral should be done.
- Clients with MA use disorder are at risk of suicide. Assessment and appropriate management should be performed.
References


Psycho-social intervention for problematic methamphetamine users

At present, there is no medication that has proven to be effective or that has been approved as a treatment to help in quitting methamphetamine use. A meta-analysis of experimental studies on the effectiveness of psycho-social intervention on addiction found that the effect size is moderate and the drop-out rate is one-third of all patients. These statistics are similar to the effectiveness of general psychiatric treatment. Thus, psycho-social intervention is the main method for methamphetamine treatment, which motivates patients to change themselves continuously, to gain essential skills, and to engage in a normal life without drug involvement. The important period of treatment is the first 4–6 months. Psycho-social interventions cited in this guideline are as follows:

3.1 Brief Advice (BA)
3.2 Brief Intervention (BI)
3.3 The Matrix Intensive Outpatient Program
3.4 Cognitive Behavioral Therapy (CBT)
3.5 Therapeutic Community (TC)
3.6 FAST Model
3.7 PMK Model
3.8 Family Intervention
3.9 Satir Model
3.10 Twelve-Step Facilitation (TSF)
3.11 Case Management
3.12 Motivational Interviewing (MI) and Motivational Enhancement Therapy (MET)
3.13 Contingency Management
3.14 Behavior Modification Camp
3.1 Brief Advice (BA)

Brief Advice (BA) is suitable for clients with low-risk substance use; in other words, their substance use has a low impact on their health, social, legal, vocational and financial issues. However, these clients tend to have more problems if they continue their substance use. BA takes 3–5 minutes, by providing information on the consequences of substance use. For example:

“From the questionnaire, your score is in the low-risk group, which means that you are at low risk of health and other problems from your current pattern of substance use.”

The therapist then discusses the following issues with the client:

- Ask if the client needs more information on substance use for themselves or their family; then give the feedback document, booklet or flyer about drug information to client.
- Enhance the client’s motivation to be aware of their own responsibility, and encourage them to maintain a pattern of low-risk substance use.
- Inform the client about the consequences of methamphetamine use:
  
  **Physical effects:** Initially, methamphetamine increases alertness, heart rate, blood pressure and nervous tension. The aftereffects may include exhaustion and nervous fatigue, which can lead to slow or inappropriate decision-making and the possibility of severe accidents. Methamphetamine users become physically tolerant after using the drug for a period of time. They then need to increase the dosage and/or frequency of use in order to obtain the same effect. Increasing tolerance causes addiction as well as many diseases such as heart disease, brain disease, and so on.

  **Brain effects:** At first, methamphetamine stimulates the central nervous system. When the effects wear off, users may experience nervous fatigue. Long-term methamphetamine use increases dementia. In cases of overdose, methamphetamine suppresses nervous and respiratory function, which may lead to unconsciousness and death.

  **Psychological and behavioral effects:** Methamphetamine use causes depressive mood and psychological disturbances such as confusion, paranoia, hostility, aggression, depression, anxiety and hallucinations. The symptoms could develop into psychosis. These behavioral disturbances may occur because methamphetamine affects the part of the brain that is responsible for aggression control. The longer the period of methamphetamine use, the more severe the aggression.

  **Social effects:** Methamphetamine use causes financial, relationship and career problems. It also leads to risky and unsafe sex, criminal behavior, being a victim of violence, family dysfunction, legal problems (e.g. caused by driving while impaired under the influence of methamphetamine), and so on.

BA is suitable for clients with low-risk substance use. The principle of BA is to give clients information regarding the consequences of substance use. It takes 3–5 minutes.

- Quality of evidence Ib, Strength of recommendation ++
3.2 Brief Intervention (BI)

Brief Intervention (BI) is suitable for clients with moderate-risk substance use; in other words, their substance use has a hazardous effect on their health, social, legal, vocational and financial issues. Their current pattern of substance use is more likely to cause more problems. BI is not designed to be the only treatment for all substance users but is used to encourage clients to admit themselves for assessment and treatment at drug treatment facilities or specialized substance abuse treatment centers. The WHO ASSIST-linked BI usually takes 3–15 minutes, but can take longer if time is available. BI consists of 10 steps, as follows:

**Step 1 – Asking clients if they are interested in seeing their questionnaire scores**

Phrasing it in this way gives the clients a choice about what happens next and immediately reduces any resistance. It is worth noting that most clients are interested in seeing and understanding their scores. The score is used during the consultation to provide feedback to clients and is given to the client at the end of the session to take home as a reminder of what has been discussed.

**Step 2 – Providing personalized feedback to clients about their scores**

There are two parts to giving feedback. The first part concerns the scores and level of risk associated with methamphetamine use. The second part of the feedback comprises communicating the risks associated with current methamphetamine use.

**Step 3 – Giving advice about how to reduce risks associated with substance use**

Giving advice to clients is simply about creating a link between reduction of drug use and reduction of harm. Clients may be unaware of the relationship between their substance use and existing or potential problems, and should be advised that cutting down or stopping their substance use will reduce the risk of problems both now and in the future. It is worth noting that advice should not be given in a judgmental or subjective way that conveys the opinion of the health worker.

**Step 4 – Allowing clients to take ultimate responsibility for their choices**

The client is responsible for their own decisions regarding substance use, and this should be reiterated to clients during the BI, particularly after feedback and advice have been given. For example, this could be expressed by saying to clients: “What you do with this information about your drug use is up to you…. I’m just letting you know the kinds of harm associated with your current pattern of use.”

**Step 5 – Asking clients how concerned they are about their scores**

This is an open-ended question designed to get the client thinking about their substance use and to start verbalizing any concerns they may have about their use. This could be expressed by saying to clients “How concerned are you about your score for methamphetamine?”
Steps 6 and 7 – Weighing up the good things about using the substance against the less-good things about using the substance

Getting a client to consider both the ‘good things’ and ‘less-good things’ about their substance use is a standard Motivational Interviewing technique designed to develop discrepancies or create cognitive conflict within the client. It is important to ask about the positive as well as the negative aspects of substance use, as it acknowledges to the client that the health worker is aware that the client has pertinent or functional reasons for using a substance. If a client has difficulty verbalizing the ‘less-good things’, health workers could prompt with answers or with open-ended questions regarding the following areas:

- **Social** – relationships with partner, family, friends, work colleagues
- **Legal** – accidents, contact with law enforcement, driving while under the influence of a substance
- **Financial** – impact on personal budget
- **Occupational** – difficulty with work, study, looking after home and family
- **Spiritual** – feelings of self-worth, guilt, wholeness

Step 8 – Summarize and reflect on clients’ statements about their substance use, with emphasis on the ‘less-good things’

Reflecting back to clients by summarizing what they have just said about the good and ‘less-good’ things regarding their substance use is a simple but effective way of acknowledging the client’s experiences and preparing the client to move on.

Step 9 – Asking clients how concerned they are about the ‘less-good things’

This is another open-ended question. It serves to strengthen thought change in the client and provides a platform for health workers to take the BI further if time is available. The question could be phrased like: “Do the less-good things concern you? How?”

Step 10 – Giving clients take-home materials to bolster the Brief Intervention

The client should receive a copy of their ASSIST feedback report card and other written information to take away with them when the session is over. The written information can strengthen and consolidate the effects of the BI, if they are read by the client. The information booklet and other materials should be given to the client with a brief explanation of their contents, using neutral language that still respects the client’s right to choose what they will do about their substance use.

Studies show that the ASSIST screening tool is qualitative and can be used in substance use screening. In 2003, the World Health Organization conducted a randomized controlled trial to test the effectiveness of ASSIST-linked BI among moderate-risk marijuana, cocaine, amphetamine-type stimulant, and opioid users who had been screened from primary healthcare units. It was found that those who obtained BI had significantly lower ASSIST scores compared with those who did not obtain BI during the three-month period after treatment. More than 80% of participants decreased their substance use after obtaining BI. At present, a study on the effectiveness of ASSIST-linked BI in Thailand is being conducted by Sawitri Assanangkornchai et al. The study is funded by the Integrated Community Addiction Management Program, Thai Health Promotion Foundation.
BI is suitable for clients with moderate-risk substance use. It is used to encourage clients to be admitted for assessment and referred to specialized substance-use treatment units. It takes around 3–15 minutes.

- Quality of evidence Ib, Strength of recommendation ++

References

3.3 The Matrix Intensive Outpatient Program

The Matrix Program is a cognitive behavioral-based treatment process. It emphasizes giving essential knowledge to client and family. Group process is considered to be the main method, and lasts for 4 months of treatment and 1 year aftercare as detailed in the following:

**Phase 1**: The intensive phase or Intensive Outpatient Program (Matrix IOP) lasts for 4 months (16 weeks). It is the first phase of treatment, yet the most important, and constitutes a crisis to help substance users confront whether they can stop using. There are four group activities provided during this phase:

- Individual/conjoint sessions
- Early recovery skills group
- Relapse prevention skills group
- Family education group

**Phase 2**: The supportive phase or aftercare program lasts for 8 months (months 5–12). A social support group serves as the main method in this phase.

From a review of randomized controlled trials, it was found that the Matrix Program has proven to be a valuable treatment program. It could help reduce clients’ substance use significantly. However, the treatment time period was considered to be a weakness of the program. Due to the frequency of sessions (3 times a week) and period of time (16 weeks), there was a high dropout rate.

A report on the results of drug treatment in 2001–2003 from 14 Matrix Program healthcare center models showed that out of 1,179 patients, 357 (30.28%) completed the program while 749 people (63.53%) dropped out. The dropout rates for the first and second months were 35–43% and 26–27%, respectively. Some of the program contents and patterns were then modified to be more appropriate for a Thai patient context: for example, the time period was reduced from 16 weeks to 12 weeks, and the frequency of visits reduced to three times a week. With those changes, Thai healthcare personnel commonly call this “The Modified Matrix Program”.

The Matrix Program is an outpatient program based on cognitive behavior and thought-changing processes which lead to relapse-prevention skills. The treatment program is clearly structured and encourages family participation.

- Quality of evidence Ib, Strength of recommendation ++
Recommendations for Health Care Providers in the Treatment of Methamphetamine Use Disorders

References


3. Substance Rehabilitation Center. Report on Substance Treatment with the Matrix Program from a Model Hospital. Chiang Mai, Thailand: Department of Medical Services; 1999.

3.4 Cognitive Behavioral Therapy (CBT)

Cognitive Behavioral Therapy (CBT) is a combination of cognitive therapy and behavioral therapy. Cognitive therapy states that individuals have beliefs, hypotheses and automatic thoughts which affect their behavior and which sometimes may not be beneficial and do not correspond to reality. Individuals’ thinking and interpretation of events cause emotions, feelings, and behavior. Individuals can improve the way they think (including feelings and actions), even if the situation does not change.

Behavioral therapy states that responding to better new learning can replace the original. Through appropriate training, the patients learn to find the causes of their problems and how to express new behavior. Simultaneously, they can be trained to utilize relaxation techniques and problem-solving skills.

CBT is based on the belief that patients can be helped to recognize and abandon irrational thoughts, emotions, and behaviors which have caused negative consequences and maladaptive behavior. The main questions of CBT are:

- What makes individuals continue to behave the way they do? (What are the triggers of their thinking, emotions, and behavior patterns?)?
- How can individuals change themselves? (What new skills need to be trained?)
- The hypothesis of CBT, used for treating methamphetamine addiction, is that substance dependence is the result of a learning process and complex behavior, and can be modified. To modify patients’ thoughts and behaviors, the main focus is on skills training regarding relapse prevention, abstinence support, managing triggers and disturbing emotions, problem-solving skills, and supporting self-efficacy (i.e., individuals’ ability to be aware of their strengths and believe that change is possible).

Basic techniques used to help patients with addiction are as follows:

1. Ask questions and teach patients to question themselves in order to find the relationship between their thoughts and emotional responses.
2. Search for positive and negative consequences in case of continuing drug use.
3. Teach patients to scale back their early craving and identify specific high-risk situations.
4. Develop management strategies and avoidance of high-risk situations.
5. Anticipate problems that might lead to lapse or relapse.
6. Develop effective problem-solving skills, such as relaxation techniques, for general challenges in life that may trigger substance use.
7. Problem-solving skill training.

A meta-analysis of studies found that CBT is effective for alcohol and substance addiction treatment. However, the effectiveness of treatment decreased during months 6–9 and became ineffective after month 12 of follow-up.
CBT is a combination of cognitive therapy and behavioral therapy that focuses on managing craving thoughts and triggers in order to avoid a relapse, given the patient’s own behaviors.

- Quality of evidence Ia, Strength of recommendation ++

References


3.5 Therapeutic Community (TC)

Therapeutic Community (TC) is a method to change patients with addictive behavior so they become individuals who have developed both physically and mentally in order to productively interact with environment and society. It involves having patients understand the principles of “self-help” and “help each other” within the same community. Group process plays an important role in helping patients adjust their attitude and find new meaning in life, encourage self-development and self-discipline, and enhance good life experiences so they can live within society without using drugs as a solution.

The TC concept is widely accepted throughout the world. It is considered a good resource for the treatment of addiction. A 5-year follow up and evaluation by the drug addiction treatment organization Daytop (USA) reported that 88% of residents who completed treatment were able to stay drug-free and live productively. Today, TCs are implemented in more than 50 countries worldwide, and many residents who completed treatment are successful in life.

The Therapeutic Community (TC) is a self-help social learning treatment model (SSLTM). It is believed that learning is created from challenges and actions, understanding humanity and universality, and self-disclosure of not only behavior but fantasy, anger, fear and hope. The internal management, both formal and informal, of TCs consists of staff and senior residents.

The goals of SSLTM are the cessation of substance abuse, changing one’s way of life, elimination of anti-social behavior, obtaining gainful employment, maintaining a positive attitude toward society, and raising self-esteem. The process of TC is based on many psychological theories, the primary one being Social Learning Theory which is composed of:

1. Group process
2. Behavior record
3. Role models, positive peer pressure, and learning experience
4. Community belief
5. Training to be a role model
6. Barriers to behavioral development

In addition, Transaction Analysis Theory is also applied in therapeutic groups of TC:

1. Group therapy such as orientation groups, morning meetings, seminars, staff meetings, recreational groups, static groups, encounter groups, job function evaluation groups, health education groups, self-help groups, and so on.
2. Work therapy such as an agriculture team, kitchen team, administrative/marketing team, tailor team, woodwork team, landscaping team, public relations team, craft team, etc.
3. Behavior reshaping technique
- Tools of the house such as confrontation, talking to, pull up, dealt with, hair-cut, prospective chair, house meeting, learning experience, shot down, and so on
- Positive reinforcement such as promotions, announcements, privileges, etc.
- Cardinal rules, philosophy, and unwritten philosophy
- Family atmosphere in a structured environment

4. Counseling (individual or group)

TC is a long-term residential program based on principles of behavior modification through a self-help group process and work therapy.

- Quality of evidence III, Strength of recommendation +/-

References
3.6 FAST Model

The FAST Model is an intensive rehabilitation which is modified from the TC model, using a shorter period of 4–6 months. The reason for reducing the treatment period is because of the high unit cost of the TC model. Also, because of the policy of a war against drugs in Thailand, there are numerous addicts who need to be cured. The FAST Model follows TC principles and emphasizes family participation from the beginning of treatment. Alternative treatment activities are also provided for patients and families which could be applied in everyday life.

There are four components of the FAST Model, as follows:

F : Family
Encouraging family participation from the beginning of treatment, and for them to be responsible for taking care of the patient within the family, community and society. Interventions for family are family education, family counseling, and therapy.

A : Alternative treatment activity
Alternative treatment activity allows patients to choose and express their interest in appropriate learning, given their present reality, and to support patients’ self-efficacy. The aims of this activity are to:
- Encourage and support patients to develop their competency and interests through activities
- Promote patients to spend quality time
- Support patients’ expression of self-esteem
- Encourage implementation for a career in the future
- Alternative treatment activities include “My club” such as a craft club, cooking club, planting club, sport club, music club and so on, and “Quality of life promotion activity” such as education, vocational training, social service, etc.

S : Self-help
The self-help process helps patients to learn and to be healed physically, mentally and socially. The way they learn how to adjust their behavior, attitudes and feelings leads them to have internal strength and to interact with their environment in a healthy way. The aims of self-help are to teach patients survival skills and desirable behavior, and their implementation in their everyday lives. The principle of emotional intelligence (EQ) is the key that helps patients adjust their behavior, attitudes and feelings on their own. The method of self-help is composed of a diary, self-evaluation, goal-setting, denial skills, self-control, achievement-raising skills, problem-solving skills, communication skills, self-discipline, and so on.
**T: Therapeutic Community**

The basic principle of the Therapeutic Community (TC) is to promote a positive quality of life and to change individuals’ lifestyles using methods of self-help and helping each other in a warm and safe environment. In TC, each patient is considered to be a family member. Living together as one big community requires rules and regulations and sharing the same ideals and philosophy. Each patient has a different role and is an important part of the community. TC focuses on behavior-changing, and includes core activities such as job functions, group therapy, and behavior-shaping tools such as “tools of the house”, rules, philosophy, norms of TC, reinforcement, and so on.

According to an evaluation of the FAST Model treatment by Thanyarak Institute, the abstinence rate among patients who completed the program, after a 1-year follow-up, was 84.04%. Presently, the FAST Model is typically used in Thanyarak Hospitals, which are under the Department of Medical Services, Ministry of Public Health. Many centers provide compulsory treatment for patients, including the Army, Navy, Royal Thai Armed Forces Headquarters, Royal Thai Police, Department of Medical Services, Department of Provincial Administration, Department of Mental Health, and so on.

The FAST Model is a short-term intensive rehabilitation that lasts for 4 months or more. A behavior-shaping approach is used through group participation, alternative activities, and family therapy. “Tools of the house”, the main behavior-shaping tool of TC, is an important mechanism to encourage desirable behavior of patients.

- Quality of evidence III, Strength of recommendation +/-

**References**

3.7 Inpatient rehabilitation of Phramongkutklao Hospital (PMK Model)

The Phramongkutklao Hospital Model (PMK Model), a hospital-based alcohol and substance treatment model, is based on the Minnesota Model and lasts for 28 days. The therapist team consists of professional staff and in-recovery alcohol and substance patients. The Twelve-Step approach (see Resource Page 3.10) is a basic principle of the model. Typically, each group consists of 8–10 patients. They meet 4 hours per day and 5 sessions per week over 28 days. Patients learn how to change their thoughts and behaviors through group process. There are five group activities, including health education, CBT, Buddhism and the Twelve Steps, relaxation group, and family education. The therapist team consists of psychiatrists, psychologists, social workers, nurses and practical nurses. A therapist meeting is held once a week to track the progress of therapy and find solutions for treatment barriers. It is also a channel for therapists to participate in the learning process. The basic principle of the PMK Model is to enhance motivation rather than to confront. In addition, therapists need to be trained in Motivational Enhancement Therapy (see Resource Page 3.12).

Admission criteria are persons who have completed detoxification, volunteered to stay in treatment for 28 days, have no physical complication that may affect group learning, and have no severe mental illness. After completing the 28-day program, patients will join outpatient group therapy, which is called the Recovery Group, once a week for 16 weeks. This phase is considered to be intensive continuing care.

The strength of the program is that its non-completion rate is low. This indicates that the treatment is effective. The duration of treatment is not overly long, but there are some limitations: patients need to be motivated initially; the cost is higher than outpatient treatment; and because the program is driven by a skilled multidisciplinary team, a specific ward is needed. However, the program has shown poor results for alcoholics with a personality disorder or severe mental illness.

The PMK Model is based on group process, Buddhism, and the Twelve Steps. The program is facilitated by a multidisciplinary team to help patients learn knowledge and skills of relapse prevention.

- Quality of evidence III, Strength of recommendation +/-
3.8 Family Intervention

The purpose of family participation in treatment is to change the pattern of relationships among family members. The change is based on a mutual understanding that the drug problem is not just one person’s problem but the whole family’s. Family participation can be categorized into three types, as follows:

1. Family psycho-education

Family psycho-education supports family members in gaining knowledge that will lead to attitudes and skills to solve problems. Most of the content helps the family to learn more about substance use and the addiction mechanism, to understand the goals and methods of the treatment, to reconsider family function (especially the co-dependence issue), and to be aware of relapse prevention and the benefits of treatment participation.

2. Family counseling

The counseling process consists of relationship-building and agreement, exploring problems, planning on problem-solving, and counseling termination. Counselors need to have essential counseling techniques such as rapport-building, communication, empathy, reflection of feeling, problem-exploring, systematic conceptual understanding, positive conceptual summarizing, planning on problem-solving, information-giving and suggestions, affirmation, rational alternative considerations, and so on.

3. Family therapy

Universal family therapy models for addiction problems usually have basic relevance to the following models:

- Family system therapy is applied from System Theory, and focuses on how addiction is a significant influence that affects the behavior of family members.

- Behavioral family therapy is developed from Learning Theory and focuses on relationship patterns leading to substance abuse.

- Social network therapy is a model incorporating some structures, such as social support, social networks, and life-threatening events, into therapy. These structures will be clarified and analyzed by family members so that they can find solutions for addiction problems.

A literature review has shown that family participation in treatment, psycho-education, family counseling and family therapy is significantly helpful in supporting family members to join together in solving problems and to live together in a healthy way. This indicates that the treatment is effective and can prevent relapse.

Family therapy helps methamphetamine users and families to understand their relationship styles, and to manage problems involving addictive behaviors which affect family members and cause patients to relapse.

- Quality of evidence Ib, Strength of recommendation +

References

3.9 Satir Model

The Satir Model is a therapy process focused on change, growth, and holistic psychological development. It is a human validation process and growth model through self-learning, enabling people to find their own internal worth and self-efficacy. Humans have internal resources that allow growth throughout life – or in the words of Virginia Satir (1916–1988), the model’s creator: “The magic is in you”.

The principles of the Satir Model state that human beings will always grow in a positive way. There are three categories of Satir’s therapeutic beliefs, as follows:

1. Beliefs about human beings
2. Beliefs about adjustment
3. Beliefs about change

The principles and beliefs are critically important elements for therapists to apply in the therapy process. This will help patients understand the nature of themselves while undergoing self-adjustment. In addition, therapists will be more confident in patients’ efficacy and will not be discouraged to urge patients to change and grow. Further studies are warranted on the effectiveness of the Satir Model on methamphetamine users.

The Satir Model is a therapy that helps therapist and client to be aware of their own efficacy, to understand oneself and one’s hidden psychological needs, to be open to change, and to stop using drugs.

- Quality of evidence IV, Strength of recommendation +/-
3.10 Twelve-Step Facilitation (TSF)

Twelve-Step Facilitation (TSF) is a method used by health personnel to facilitate anonymous groups. Its main purpose is to encourage patients to attend anonymous groups and develop themselves following the Twelve Steps.

The following are the original Twelve Steps, as published by Alcoholics Anonymous:
1. We admitted we were powerless over alcohol—that our lives had become unmanageable.
2. Came to believe that a power greater than ourselves could restore us to sanity.
3. Made a decision to turn our will and our lives over to the care of God as we understood Him.
4. Made a searching and fearless moral inventory of ourselves.
5. Admitted to God, to ourselves, and to another human being the exact nature of our wrongs.
6. Were entirely ready to have God remove all these defects of character.
7. Humbly asked Him to remove our shortcomings.
8. Made a list of all persons we had harmed, and became willing to make amends to them all.
9. Made direct amends to such people wherever possible, except when to do so would injure them or others.
10. Continued to take personal inventory, and when we were wrong, promptly admitted it.
11. Sought through prayer and meditation to improve our conscious contact with God as we understood Him, praying only for knowledge of His will for us and the power to carry that out.
12. Having had a spiritual awakening as the result of these steps, we tried to carry this message to alcoholics, and to practice these principles in all our affairs.

Most medical evidence supports the effectiveness of the Twelve-Step program in alcoholics, and there is some evidence showing positive results for other drugs as well.

The Twelve-Step program is widely used for other drugs in Western countries, e.g. Narcotics Anonymous, Methamphetamine Anonymous, etc. In Thailand, the Twelve Steps have been combined with some key Buddhist principles such as the Precepts and the Noble Eightfold Path; this is the subject of ongoing research in order to develop the appropriate model and evaluate the effectiveness of the program.

Twelve-Step Facilitation is a therapy supporting methamphetamine users to join a self-help group based on the Twelve Steps in order to develop themselves and ultimately stop using the drug.

- Quality of evidence Ib, Strength of recommendation +/-

References
3.11 Case Management

Case Management is a cooperative process of assessment, management planning, counseling, and providing a menu of treatment in order that patients are treated effectively according to their individual needs. The process requires good communication skills and resource management.

The purpose of Case Management is to enhance cooperation and motivation for admission by establishing easier access channels for patients and emphasizing community participation during the rehabilitation phase. In addition, patients will be treated holistically.

Communication and referral may be performed by the same service agent, which is called Intra-Program Case Management (such as referring a patient from the outpatient to the inpatient department), or between agents, which is called Inter-Program Case Management (for example, referring a patient from a service agent to a vocational agent).

Principles of effective Case Management

1. One-stop service: to facilitate patients to remain in contact with health services from the beginning until the end of treatment.
2. Client-centered: to provide a response that meets patients’ needs. Therapists offer a menu of treatment, while patients are responsible for their decisions.
3. Advocate for clients: to encourage patients to enter treatment and to coordinate with other concerned parties such as legal agents.
4. Community-based: to encourage the community to join in the treatment. This will help patients have access to services in the community.
5. Pragmatic or practical: to prioritize the problems of the patient.
6. Anticipatory: to understand the nature of an addictive brain and to anticipate potential problems and prepare an appropriate treatment plan.
7. Flexible: to adjust to patients’ needs and their resources and community; some unsuccessful efforts may need to be re-evaluated.
8. Be culturally sensitive: to always consider the cultural context of patients.

Functions of Case Management

1. Assessment: This is essential for developing a treatment plan, monitoring patients’ progress after discharge, and prioritizing patients’ needs based on their information.
2. Planning: A plan is created by using information from the assessment, main problems, overall goals, and options for helping patients.
3. Linkage: Linkage is an important part of treatment because a health service cannot respond to all of a patient’s needs. The case manager will be a coordinator to link patients to other services.
4. Monitoring: Monitoring is a method to ensure that patients remain in treatment by monitoring patients’ progress, managing the barriers to treatment (such as long waiting time), and coordinating with other departments.
5. Advocacy: Being a representative of patients for some issues will allow patients to get the maximum benefit from treatment.
Steps of Case Management

1. Assessment helps to know patients’ needs. After assessment, the information will be used to develop a treatment plan.
2. Goal-setting and prioritizing: to set realistic, measurable and checkable goals, and then prioritizing them in terms of essential needs.
3. Developing a referral database: to collect information on referral agents, including their location, contact number, etc.
4. Preparing clients before referring: to inform patients about the reasons for referral, the assistance they will receive, potential barriers, and basic information on the referral agent.
5. Follow-up after referring: to continuously exchange information with referral agents, with concern for the confidentiality of patients, and to summarize treatment results and review goals of treatment periodically.
6. Maintaining referral sources: to update referring data, to evaluate referring periodically from the patients’ point of view, to ensure that patients have access to referral agents, and to develop professional relationships and a treatment team.

Case Management is a client-centered care system. Therapists facilitate communication and cooperation among a multidisciplinary team, family, and community in order to serve the specific needs of each patient, and to support patients in stopping drug use appropriate to their individual context.

- Quality of evidence III, Strength of recommendation +/-

References

3.12 Motivational Interviewing (MI) and Motivational Enhancement Therapy (MET)

Updated evidence-based approaches for methamphetamine users are Motivational Interviewing (MI) and Motivational Enhancement Therapy (MET), which are correlated with the principles of Stages of Change.

Stages of Change

This is a theory that explains individuals’ motivation to change behavior. Generally, individuals’ behavior and motivation are changeable and often switch back and forth in the stage model of change before they can stop drug use. The six stages of change are shown in the following figure.
Table 8 Characteristics of patients in each Stage of Change

<table>
<thead>
<tr>
<th>Stage of Change</th>
<th>Characteristics</th>
<th>Behavior</th>
<th>Techniques</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre-contemplation</td>
<td>Not currently considering change; no awareness of problems; does not admit that drug use causes problems or risks</td>
<td>Behavior dissimulation; express resistance or anger when facing pressure, or if forced to stop drug use, or when someone else talks to them about their drug use</td>
<td>Give information, facts and feedback about patients’ drug use; encourage patients to begin treatment whenever they are ready</td>
</tr>
<tr>
<td>Contemplation</td>
<td>Becoming aware of problematic drug use; ambivalent about reasons to stop or not stop drug use</td>
<td>Continue drug use but think about stopping or reducing drug use in the future; weigh good and bad consequences of drug use</td>
<td>Encourage evaluation of pros and cons of behavior change; help patients to talk about changing themselves</td>
</tr>
<tr>
<td>Determination/Preparation</td>
<td>Planning to stop drug use, such as making a decision to begin treatment, considering their own potential to change</td>
<td>Try to stop or reduce drug use by their own method; start to set goals on stopping drug use</td>
<td>Help patient to formulate a behavior change plan; give them a menu of choices and respect their own choices</td>
</tr>
<tr>
<td>Action</td>
<td>Having self-confidence to change and re-consider a new self-image</td>
<td>Change life style and admit support from external agents such as therapist and family; keep coming to appointments regularly</td>
<td>Help patients to commit to and act on the determined plan; learn relapse-prevention technique</td>
</tr>
<tr>
<td>Maintenance</td>
<td>Continuing commitment to sustain new behavior</td>
<td>Discuss other problems such as emotional skills, lack of trust, and developing new activities</td>
<td>Help patients to develop essential skills for stopping drug use; relationship recovery; commit to new activities without drug use</td>
</tr>
<tr>
<td>Relapse</td>
<td>Commonly seen, since most patients cannot maintain their behavior change; patients often start again from the first step of Stage of Change</td>
<td>Feel guilty and disappointed, hopeless about changing their behavior, avoid going to treatment</td>
<td>Encourage patients to go back to behavior change; instill hope and give encouragement; support them in maintaining treatment</td>
</tr>
</tbody>
</table>
Motivational Interviewing (MI)

MI is a client-centered counseling approach focusing on motivation to change. Self-perception theory affects patients’ learning process so that patients have more understanding from self-talk, while therapists encourage patients to express self-motivational statements (SMS) by using the following techniques:

- O – Open-ended questioning
- A – Affirmation
- R – Reflective listening
- S – Summarization

Motivational Enhancement Therapy (MET)

MET was first established by Project MATCH of the National Institute on Alcohol Abuse and Alcoholism (NIAAA) for treatment of alcoholics. It is comprised of four sessions over 12 weeks, on weeks 0, 1, 6 and 12. Study results have shown that MET had as good an effect on alcohol patients as two other standard therapies, Cognitive Behavioral Therapy and Twelve-Step Facilitation.

MET is a therapy correlated with Stages of Change and MI. It is aimed at enhancing motivation to change behavior, and can be divided into three phases, as follows:

- Phase 1: Information-giving and feedback
- Phase 2: Emphasizing patients’ commitment to change and plans
- Phase 3: Monitoring progress, goal review, and continuing motivation enhancement

MET’s therapeutic techniques are composed of DARES:

- D: Develop discrepancies, help patients to define their current status and desired goals by talking about their life goals and potential consequences if they continue their drug use
- A: Avoid argumentation (avoid arguing with patients)
- R: Roll with resistance (deal with patients’ resistance by using reflective listening and reflection of feelings in order to help patients decide to change their behavior)
- E: Express empathy
- S: Support self-efficacy

A meta-analysis found that MI is effective:

- For problematic substance use in adolescents (although may have low effect size)
- Among substance use inpatients in psychiatric hospitals
- For motivating substance users to continue treatment and rehabilitation along with goal-setting to stop using drugs

A quasi-experimental study in Thailand, using MET for motivation and treatment of drug addicts entering a program in Pathum Thani province revealed that MET can be applied in inpatient group therapy. It is effective at helping patients increase their “readiness to change” and preventing relapse during the first month.
MI and MET are therapeutic approaches correlated with the principles of Stages of Change, using counseling techniques and supporting patients to have readiness to change and reduce drug use through their own self-efficacy.

- Quality of evidence Ib, Strength of recommendation ++

References


3.13 Contingency Management (CM)

Contingency Management (CM) is another therapy for substance users. It was founded by a researcher studying the behavior of animals, including monkeys and mice, that were given cocaine, opium and alcohol. Subsequently, the results of the study were applied to the substance use problem in humans. Researchers use positive reinforcement to create behavior change by using laboratory examinations such as a urine drug test. Once patients are diagnosed negative, they will be rewarded by being given a ticket or token that can be exchanged for items of value when they complete the program. In the case of three straight negative urine tests, the patient will be considered for an extra bonus. However, in the case of a positive urine test, the patient will need to start all over again for 12 weeks, with urine testing 3 times a week. Some studies have investigated the effects of CM, but there are still few applications in drug treatment settings and it is rarely applied in primary settings. The basic principles of CM are as follows:

1. **Reinforcement of abstinence**
   At an early stage of stopping drug use, patients may experience unemployment, and have no lodging or social support. Some studies have suggested that providing these supports will be a positive reinforcement and help patients stop using drug for a longer period.

2. **Reinforcement of medication compliance**
   Besides reinforcement for stopping drug use, there is reinforcement for medication compliance as well (e.g. disulfiram for alcoholics and methadone for heroin addicts).

3. **Reinforcement of treatment attendance**
   To reinforce patients to attend the treatment process continuously.

Currently, the therapeutic structure of CM consists of four components, as follows:

- Laboratory examination such as urine testing, saliva testing, and breath testing
- Rewarding when patients are abstinent
- Negative reinforcement or punishment when patients are detected using drugs

In addition, therapists encourage alternative behaviors such as building family relationships, attending public events and community activities, and promoting good health, including exercise and a healthy diet.

Contingency Management is based on principles of positive reinforcement in order to help patients achieve desirable goals and ultimately change their drug use behavior. CM is usually used in combination with another main treatment.

- Quality of evidence Ib, Strength of recommendation +
References


3.14 Behavior Modification Camp

Behavior Modification Camp is a drug rehabilitation approach using principles of behavior modification. Patients are required to stay in defined rehabilitation centers for 10–45 days. This functions as an initial stage of treatment, for preliminary psychological rehabilitation and for identifying drug users who refuse to open themselves up to treatment. These drug users may have varying severities of addiction. Some of them are drug dealers as well. Therefore, after they have completed the program they will still need some support, continuing psychological rehab and regular follow-up until they have confidence that they can stop using drugs. In Thailand, many agencies have adopted this approach, such as the Ministry of Interior, Ministry of Education, Ministry of Public Health, Ministry of Defense, and so on. The procedures of Behavior Modification Camp are as follows:

- Preparation: appointment of working group members, recruiting members for appropriate work, organizing equipment and supplies, establishing a schedule of activities, and finding a location for holding camp activities (e.g. temples, schools)
- Target groups: typically these are high-risk users or abusers, such as students in the educational system or those living in epidemic areas
- Coordination among involved agencies
- Rules, regulations and discipline of camp members
- Processing: evaluation of problems, physical exam, history-taking, detoxification, giving some useful basic knowledge, recreational activities, building relationships, group therapy, skill-training groups, etc.
- Evaluation and follow-up

Examples of structured behavior modification camps are Tonkla Youth Camp of Thanyarak Institute and the Wiwatponlamueng School of the Ministry of Defense.

Behavior Modification Camp is based on behavior modification using group process for 10–45 days. It is suitable for high-risk groups. Screening plays an essential part.

- Quality of evidence IV, Strength of recommendation +/-
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Aftercare

Follow-up and continuing care are the final phase of the treatment process for methamphetamine users who have completed a treatment program and rejoined their families and communities. This phase lasts for 1 year, with seven scheduled appointments. In this phase, suggestions and encouragement are helpful for patients and families in order to support patients’ return to a normal life in society and so they will stay drug-free.

Patients will be contacted systematically and urine-tested at every appointment in order to ensure more effective treatment. Discharge planning is important. Before discharge, patients need to be informed about the importance and objectives of aftercare so that they cooperate better. Aftercare can be done in different ways, depending on the resources of the hospital or health service agent.

**Direct aftercare:** Therapists can meet patients face-to-face and ask probing questions about treatment results along with urine testing and giving some advice directly. Direct aftercare visits are usually held at the hospital, home, workplace or other appropriate location.

**Indirect aftercare:** If patients cannot attend direct aftercare, indirect aftercare is the choice. Therapists meet patients or relatives/caregivers indirectly via telephone or internet connection. This is mutually convenient and saves time. However, information from patients may not be complete, and the counseling process may also not be as effective.

**Steps of aftercare**

1. **Preparation:** therapist (may be a social worker or follow-up team) develops a plan before discharge, and schedules 7 appointments over the course of the following year:
   - 2 weeks after completing treatment
   - 1 month after completing treatment
   - 2 months after completing treatment
   - 3 months after completing treatment
   - 6 months after completing treatment
   - 9 months after completing treatment
   - 1 year after completing treatment

2. **Implementation**
   2.1 Bio-psycho-social evaluation, family evaluation and urine testing
   2.2 Aftercare activities
      - Individual or group counseling
      - Home health care
      - Social cognitive group and social support group

3. **Managing the next appointment**

4. **Recording aftercare results** (Resource Page 5–6)
Aftercare activities

1. Individual counseling

Individual counseling is an important helping process to encourage patients to explore and understand their problems and find solutions by themselves, and to live a normal life without using drugs. It is an alternative method to follow for helping patients according to their problem context.

2. Home health care

Home health care is a type of home visit aimed at following up and providing continuing care for methamphetamine patients in a real-life environment. This activity will help the therapist to analyze patients’ problems and illnesses, to assess risks affecting relapse, to encourage family participation to continuously motivate patients, to coordinate with any involved network, and to refer patients to community or appropriate agencies.

3. Social cognitive group

Social cognitive group is an activity to support patients and prevent relapse. It is an extension of Social Learning Theory (developed by Albert Bandura, psychologist and social scientist) which focuses on three concepts: observational learning, self-efficacy and self-regulation, appended to emotional intelligence (EQ) development and relapse prevention theory via a group process.

Social cognitive group is comprised of 7 activities, as follows:

1. Inner strength: concept of modeling and relapse prevention theory
2. Commitment: concept of inspiration, self-motivation and self-efficacy
3. Purpose: concept of EQ and realistic goals
5. Self-esteem: concept of self-efficacy
7. Strength: concept of self-energy, EQ and self-regulation

References

Resource Page 5

Assessment tools

5.1 Alcohol, Smoking and Substance Involvement Screening Test (ASSIST)
5.2 Ministry of Public Health assessment
5.3 Withdrawal assessment
5.4 Depression screening with 2Q and 9Q
5.5 Suicidal screening with 8Q
5.6 Substance treatment outcome assessment
5.7 Level of evidence and strength of recommendation
### 5.1 Alcohol Smoking and Substance Involvement Screening Test; ASSIST

<table>
<thead>
<tr>
<th>No</th>
<th>ข้อคำถาม</th>
<th>คำตอบ</th>
<th>บุหรี่</th>
<th>สูบบุหรี่</th>
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<th>สารเสพติดที่เคยใช้ (ระบุ)</th>
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<th>ความเสี่ยง</th>
<th>ปัจจัยอื่นๆ</th>
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<th>ผลิตภัณฑ์/สารเสพติดที่เคยดื่มในช่วง 3 เดือนที่ผ่านมา</th>
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**หมายเหตุ:** ตัวแปลงจาก ASSIST ฉบับเต็มของ WHO, ตัวแปลงระดับความเสี่ยงตามข้อสอบแบบจากการทดสอบในประเทศไทย
5.2 Ministry of Public Health assessment

แบบคัดกรองและส่งต่อผู้ป่วยที่ใช้ยาและสารเสพติดเพื่อรับการปั๊บอัครอบครัว กระทรวงสาธารณสุข (บคก.กสธ.) V.2

ชื่อ-สกุล.................................................. อายุ [ ] ปี และประจำตำแหน่ง [ ]
ที่อยู่ปัจจุบัน เลขที่……………………ชอง/ถนน……………………หมู่บ้าน/ชุมชน………………ด้าน/แขวง อัน revoke/เขต…………………………จังหวัด…………………………………รหัสไปรษณีย์………………………………
ภูมิลำเนาเดิม (ช่วงหรือ) …………………………………อาชีพ………………………………
ยาและสารเสพติดหลักที่ใช้ใน 3 เดือนที่ผ่านมา (ตอบได้มากกว่า 1 ข้อ) วันที่คัดกรอง………… สถานที่คัดกรอง…………
[ ]ยาบ้า [ ]ไอซ์ [ ]ยาอี [ ]กัญชา [ ]กระท่อม [ ]สารระเหย [ ]เฮโรอีน [ ]ฝิ่น [ ]อื่นๆ (ระบุ)………………………………

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<th>ยาและสารเสพติดหลักที่ใช้และคัดกรองครั้งนี้ คือ……………ในช่วง 3 เดือนที่ผ่านมา</th>
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<th>3 ครั้ง</th>
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รวมคะแนน

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<td>5. ญาติ เพื่อน หรือคนที่รู้จักเคยอภิปรายตัดสินใจว่ามาตรวจรักษา จับเพื่อนสนิท หรือเสนอว่าที่เคยช่วยกันการใช้…………………………………หรือไม่</td>
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รวมคะแนน

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<td>สูง***</td>
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คุณเคยใช้สารเสพติดชนิดฉีดหรือไม่

- [ ] ไม่เคย
- [ ] เคย

ข้อแนะนำ

- ให้การบริการแบบสั้น (Brief Intervention)
- ให้บริการลดอันตรายจากการใช้ยา
- ประเมินเพิ่มเติม วางแผน และ ให้การบริการรักษาแบบเข้มข้นรายบุคคล

หมายเหตุ

* อนุมานว่าเป็นผู้ใช้
** อนุมานว่าเป็นผู้เสพ
*** อนุมานว่าเป็นผู้ติด

ลงชื่อ............................................ผู้สัมภาษณ์

สิ่งที่ควรคำนึงถึงก่อนการคัดกรอง

เพื่อให้ผู้ใช้ยาและสารเสพติดเกิดความไว้วางใจและได้คำตอบที่เป็นจริง ผู้ที่ทำการคัดกรองควรปฏิบัติดังนี้

- สร้างสัมพันธภาพกับผู้ถูกสัมภาษณ์โดยการช่วยให้ผู้ทั้งสองรู้สึกว่าท่าน เป็นมิตร
- มีทัศนคติเชิงบวกกับผู้ใช้ยาและสารเสพติดไม่ตัดสินลูกมิตรในคำตอบที่ไม่เห็นด้วย
- แสดงท่าทีให้เห็นว่าการตัดสินใจดังกล่าวเป็นการที่ชอบ
- ไม่ถือถือความรู้สึกของผู้ใช้ยาและสารเสพติดโดยไม่ได้แสดงความเห็นออก เห็นใจ
- แจ้งให้ผู้ใช้ยาและสารเสพติดทราบว่าข้อมูลที่ให้มาไม่มีผลกระทบใด ๆ ต่อผู้ใช้ยาและสารเสพติดและจะเก็บรักษาเป็นความส่วนตัว
แนวทางการช่วยเหลือในกลุ่มต่าง ๆ

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| ผู้ใช้ | • การให้ความรู้และส่งเสริมสุขภาพ (Health Education & Promotion)  
• การให้คำแนะนำแบบสั้น (Brief Advice ; BA) และหรือ การปั๊บดแบบสั้น (Brief Intervention ; BI) จำนวน 1 - 2 ครั้ง เป็นเวลา 2 สัปดาห์  
• การช่วยเหลือของครอบครัว โรงเรียน และชุมชน  
• การปั๊บดความร่วมทางจิตเวช (ถ้ามี) หมายเหตุ : กลุ่มผู้ใช้ไม่ต้องปั๊บดที่ข้อมูลในระบบข้อมูล บสท. |
| ผู้เสพ | • ค่ายปรับเปลี่ยนพฤติกรรม 9 วัน/วิธีเป็นศูนย์สังเคราะห์/มัลติเป็นศูนย์สังเคราะห์ (1 เดือน)  
• การปั๊บดแบบเสริมสร้างแรงจูงใจ (Motivational Interviewing ; MI) (Motivational Enhancement Therapy ; MET) 1 - 2 เดือน  
• การปั๊บดความคิดและพฤติกรรม (Cognitive Behavioral Therapy ; CBT) 1-2 เดือน  
• จิตสังคมปั๊บด ได้แก่ Modified MATRIX, จิตสังคมปั๊บดในโรงเรียน, จิตสังคมปั๊บดในโรงพยาบาล, คลินิก ใกล้ใจในชุมชน (1-2 เดือน)  
• ± การรักษาด้วยยา (Medication)  
• การรักษาโรครวมทางจิตเวช (ถ้ามี) |
| ผู้ดื่ม | • การปั๊บดแบบผู้ป่วยนอก จิตสังคมปั๊บด เช่น Modified Matrix, MATRIX Program (4 เดือน), การปั๊บดความคิดและพฤติกรรม (CBT) 2-4 เดือน, การปั๊บดแบบเสริมสร้างแรงจูงใจ (MET) 2-4 เดือน, ครอบครัวปั๊บด 2-4 เดือน, จิตสังคมปั๊บดจากเทบิ (Satir Model) 2-4 เดือน  
• การปั๊บดแบบผู้ป่วยใน ได้แก่ การปั๊บดที่พื้นที่รุ่นแบบชุมชน ปั๊บด (Therapeutic Community ; TC), การปั๊บดที่พื้นที่รุ่นแบบมัลติชั้นทางสายใหม่ (FAST Model) 4 เดือน - 1 ปี  
• ± การรักษาด้วยยา (Medication)  
• การรักษาโรครวมทางจิตเวช (ถ้ามี) |

แนวปฏิบัติการให้บริการลดอันตรายจากการใช้ยาเสพติด (Harm Reduction) สำหรับผู้ใช้หรือเคยใช้ยาเสพติดชนิดเดิม (10 ขั้นบริการ)

- การให้ความรู้และการฝึกทักษะการป้องกันการติดเชื้อไวรัสอวัยวะและยาเสพติด - การตรวจและรักษาโรคที่息息相关ที่สำคัญ  
- การปั้นรักษายาเสพติดโดยใช้สารพัดแห่งระบบยา (MMT) - การป้องกัน วินิจฉัยและรักษาโรค  
- การให้บริการรักษารักษาการดื้อและเสริมสร้างการให้การเลิกยาเสพติดที่มีกิจกรรม - การจัดกลุ่มเพื่อนช่วยเพื่อน  
- การให้บริการรักษาการดื้อและส่งเสริมการได้รับการรักษาที่มีกิจกรรม - การสนับสนุนให้เข้าร่วมและควบคุมมิติที่ให้ผล  
- การปั้นรักษาและเพิ่มพูนสมรรถภาพและการป้องกันการเสพติดข้า - กิจกรรมกลุ่มเพื่อนช่วยเพื่อน
5.3 Withdrawal assessment

Amphetamine Withdrawal Questionnaire Version 2 (AWQV2)

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<td>2. รู้สึกซึมเศร้า</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
</tr>
<tr>
<td>3. รู้สึกเบื่อ หมดความสนุกหรือความสุขใจ</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
</tr>
<tr>
<td>4. รู้สึกกดดัน</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
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<tr>
<td>5. รู้สึกเคลื่อนไหวของข้า</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
</tr>
<tr>
<td>6. รู้สึกทวีความอยู่อย่างไม่สุข</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
</tr>
<tr>
<td>7. ไม่มีเชื้อครางหรืออ่อนเพลีย</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
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<tr>
<td>8. รู้สึกอยากยาบ้าหรือทานยาบ้ามากขึ้น</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
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<tr>
<td>9. สั่นเริ่มหรือรู้สึกว่ามีแรงจูงใจ</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
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<tr>
<td>10. รู้สึกอยากยาบ้าเหมือนมาก</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
</tr>
</tbody>
</table>

1. Hyperarousal subscale score (items 1 + 6 + 9).......................... 
2. Anxiety subscale score (items 3 + 4 + 5).................................
3. Reversed vegetative subscale score (items 7 + 8 + 10).
4. Total AWQ score (all three subscale scores + item 2)....

5.4 Depression screening with 2Q and 9Q

**Recommendations for Health Care Providers in the Treatment of Methamphetamine Use Disorders**

### 5.4 Depression screening with 2Q and 9Q

**แบบคัดกรองโรคซึมเศร้า ผู้มีปัญหาการใช้สารเสพติด**

#### แบบคัดกรองโรคซึมเศร้าด้วย 2 คำถาม (2Q)

<table>
<thead>
<tr>
<th>คำถาม</th>
<th>ไม่ใช่</th>
<th>ใช่</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. ใน 2 สัปดาห์ที่ผ่านมา รวมวันนี้ ท่านรู้สึก หดหู่ เศร้า หรือท้อแท้สิ้นหวัง หรือไม่</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>2. ใน 2 สัปดาห์ที่ผ่านมา รวมวันนี้ ท่านรู้สึก เบื่อ ทำอะไรก็ไม่ลดเสพติด หรือไม่</td>
<td>0</td>
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</tr>
</tbody>
</table>

#### การแปลผลและการช่วยเหลือ ดังนี้

1. ถ้าตอบว่า ไม่มี ทั้ง 2 ข้อ แสดงว่าไม่มีภาวะซึมเศร้า
2. ถ้าตอบว่า มี ข้อใดข้อหนึ่ง หรือมีทั้ง 2 ข้อ แสดงว่า มีความเสี่ยงหรือมีแนวโน้มที่จะซึมเศร้า ต้องคัดกรองต่อ ด้วย 9Q

#### แบบคัดกรองโรคซึมเศร้าด้วย 9 คำถาม (9Q)

<table>
<thead>
<tr>
<th>คำถาม</th>
<th>ไม่มีเลย</th>
<th>เป็นบางวัน 1-7 วัน</th>
<th>เป็นบ่อย &gt; 7วัน</th>
<th>เป็นทุกวัน</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. เบื่อ ไม่สนใจอยากทำอะไร</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>2. ไม่สบายใจ ซึมเศร้า ท้อแท้</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>3. หลับยากหรือหลับๆตื่นๆหรือหลับมากไป</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>4. เหนื่อยง่ายหรือไม่ค่อยมีแรง</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
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<tr>
<td>5. เรื่องที่ชอบหรือกิจการแปลกไป</td>
<td>0</td>
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<td>2</td>
<td>3</td>
</tr>
<tr>
<td>6. รู้สึกไม่ได้กับตัวเอง คิดว่าตัวเองมั้งแหละหรือควบคุมสติหน้าง</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>7. สมาธิไม่ดี เวลาทำอะไร เช่น ดูหนัง ฟังวิทยุ หรือทำงานที่ต้องใช้ความตั้งใจ</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
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<tr>
<td>8. พูดช้า ทำอะไรช้าลงจนคนอื่นสังเกตเห็นได้ หรือกระทั่งยากที่จะทำให้ยุ่งยากที่จะยอม</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
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<tr>
<td>9. คิดทำลายตนเอง หรือคิดว่าทำลายไปคงจะดี</td>
<td>0</td>
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<td>2</td>
<td>3</td>
</tr>
</tbody>
</table>

#### การแปลผลและการช่วยเหลือ

<table>
<thead>
<tr>
<th>คะแนน</th>
<th>การช่วยเหลือ</th>
</tr>
</thead>
<tbody>
<tr>
<td>น้อยกว่า 7</td>
<td>ไม่มีภาวะซึมเศร้าหรือมีภาวะซึมเศร้าระดับน้อยมาก การขับเคลื่อนความรุนแรงปัญหาสารเสพติด</td>
</tr>
<tr>
<td>7 - 12</td>
<td>มีภาวะซึมเศร้าระดับน้อย การขับเคลื่อนความรุนแรงปัญหาสารเสพติด</td>
</tr>
<tr>
<td>13 - 18</td>
<td>มีภาวะซึมเศร้าระดับปานกลาง การขับเคลื่อนความรุนแรงปัญหาสารเสพติด</td>
</tr>
<tr>
<td>19 - 24</td>
<td>มีภาวะซึมเศร้าระดับรุนแรง การขับเคลื่อนความรุนแรงปัญหาสารเสพติด</td>
</tr>
</tbody>
</table>

### การแปลผลและการช่วยเหลือ

1. คะแนน น้อยกว่า 7 ให้การขับเคลื่อนความรุนแรงปัญหาสารเสพติด ได้ให้การขับเคลื่อนความรุนแรงปัญหาสารเสพติด
2. คะแนน 7 - 12 มีภาวะซึมเศร้าระดับน้อย ให้การขับเคลื่อนความรุนแรงปัญหาสารเสพติด
3. คะแนน 13 - 18 มีภาวะซึมเศร้าระดับปานกลาง ให้การขับเคลื่อนความรุนแรงปัญหาสารเสพติด
4. คะแนน 19 - 24 มีภาวะซึมเศร้าระดับรุนแรง ให้การขับเคลื่อนความรุนแรงปัญหาสารเสพติด
5.5 คะแนน 8Q

แบบคัดกรองภาวะฆ่าตัวตาย ผู้มีปัญหาการใช้สารเสพติด

วันที่ ........................................
ชื่อ-สกุล ................................................................. อายุ ................. ปี HN ........................................

แบบประเมินภาวะฆ่าตัวตายด้วย 8 คำถาม (8Q)

<table>
<thead>
<tr>
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<tbody>
<tr>
<td>1. ในเดือนที่ผ่านมาร่วมทั้งวันนี้ คิดอยากตายหรือคิดว่าจะมีตัวตายูนิโคแน่น</td>
<td>0</td>
<td>1</td>
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<tr>
<td>2. ตั้งแต่เดือนก่อนจนถึงวันนี้ อยากทำร้ายตัวเองหรือทำให้ตัวเองบาดเจ็บ</td>
<td>0</td>
<td>2</td>
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<tr>
<td>3. ตั้งแต่เดือนก่อนจนถึงวันนี้ คิดเกี่ยวกับการฆ่าตัวตาย (ถ้าตอบว่าคิดเกี่ยวกับการฆ่าตัวตายให้ถามต่อ...)</td>
<td>0</td>
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<tr>
<td>- ทำแผนที่ตายของคุณอย่างหลีกเลี่ยง..ที่ทำคิดอยู่นั้นได้หรือไม่หรือ</td>
<td>ได้</td>
<td>ไม่ได้</td>
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<tr>
<td>- บอกไม่ได้ว่าคงจะไม่ทำตามแผนความคิดนั้น ในขณะนี้</td>
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<td>4. ตั้งแต่เดือนก่อนจนถึงวันนี้ มีแผนการที่จะฆ่าตัวตาย</td>
<td>0</td>
<td>8</td>
</tr>
<tr>
<td>5. ตั้งแต่เดือนก่อนจนถึงวันนี้ ได้เตรียมการที่จะทำให้ตัวเองบาดเจ็บ</td>
<td>0</td>
<td>9</td>
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<tr>
<td>6. ตั้งแต่เดือนก่อนจนถึงวันนี้ ได้เตรียมการที่จะทำให้ตัวเองตาย</td>
<td>0</td>
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<tr>
<td>7. ตั้งแต่เดือนก่อนจนถึงวันนี้ ให้พยายามฆ่าตัวตาย โดยคาดหวัง/ตั้งใจที่จะให้ตาย</td>
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<tr>
<td>8. ตลอดชีวิตที่ผ่านมาถ้าคิดโทษฆ่าตัวตายมาตลอดชีวิต</td>
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รวมคะแนน ........................................

การแปลผลและการช่วยเหลือ บูรณาการตามแนวทางการดูแลและระวังภาวะซึมเศร้า ดังนี้
1. คะแนน 1-8 คะแนน มีแนวโน้มที่จะฆ่าตัวตายระดับน้อย
   → ให้การป่วยแบบต้นกำเนิดกับการป่วยตามความรุนแรง ปัญหาสารเสพติด
2. คะแนน 9-16 คะแนน มีแนวโน้มที่จะฆ่าตัวตายระดับกลาง
   → ส่งแพทย์ให้ประเมินวินิจฉัย ช่วยเหลือ ฝ่ายระวังกับการป่วยตามความรุนแรง ปัญหาสารเสพติด
3. คะแนนมากกว่าหรือเท่ากับ 17 คะแนน มีแนวโน้มที่จะฆ่าตัวตายระดับรุนแรง
   → ส่งแพทย์ให้ประเมินวินิจฉัย ช่วยเหลือทางจิตเวชควบคุม ร่วมกับการป่วยตามความรุนแรง ปัญหาสารเสพติด

เอกสารอ้างอิง
การบูรณาการ การคัดกรอง ประเมินวินิจฉัย บัตรรักษาการจิตเวชที่เกิดขึ้น ในผู้มีปัญหาสารเสพติด.
เอกสารประกอบการอบรมหลักสูตรการประเมินคัดกรองผู้เสพผู้เสพติดยาเสพติดและแนวทางการให้ความช่วยเหลือเร่งด่วน (วันที่ 18 สิงหาคม 2557 ณ โรงแรมอิมพีเรียลแม่ปิง).
5.6 Substance treatment outcome assessment

แบบการติดตามผลการรักษาผู้ป่วยสารเสพติด (บสต.5) ปกปิด

<table>
<thead>
<tr>
<th>การดีตัว</th>
<th>วิธีการติดตาม</th>
<th>ผลกระทบตัวร่างกาย</th>
<th>สภาพจิตใจ</th>
<th>ลำพังภายในชุมชน</th>
<th>ปัญหา/การฆ่าตัวตาย</th>
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<td>ครั้งที่ 1</td>
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<td>(2 ปีต่อ)</td>
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<td>หลังจาก</td>
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<td>ผู้ติดตัว</td>
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<td>ตามต่ำ</td>
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<table>
<thead>
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<th>ผลกระทบ</th>
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<th>ผลกระทบ</th>
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<tr>
<td>ใช้ 1-2 ครั้ง/สัปดาห์</td>
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</tr>
<tr>
<td>ไม่ยอมรับ</td>
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</tr>
</tbody>
</table>

สรุปผลการติดตามครั้งที่ 1

1. การศึกษา | การศึกษา (ปัจจุบัน) ระดับชั้น | ปีที่ | สถานศึกษา |
2. การประกอบอาชีพ | อาชีพ (ปัจจุบัน) | ว่างงาน | อื่นๆ |
3. การฝึกอาชีพ | มีความต้องการฝึกอาชีพ | ไม่ต้องการฝึกอาชีพ | ได้รับการฝึกอาชีพแล้ว |
4.ผลการติดตาม | ไม่เสพ | เลophobic | ดื้อไม่ได้ |
| | อกยัน | เลียวผิด | |
| | มองเห็น | เห็นภาพ | สังคีติ |
| | อยู่คนเดียว | อยู่ร่วมกัน | อื่นๆ |

หมายเหตุ ข้อมูลนี้ใช้สำหรับการบ้านกำหนดและพัฒนาพันธุ์ ที่มีการใช้ในทางอื่นโดยเฉพาะ

Appendix 5-6
5.7 Level of evidence and strength of recommendation

<table>
<thead>
<tr>
<th>Categories of evidence for causal relationships and treatment</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Ia Evidence from meta-analysis of randomized controlled trials</td>
<td></td>
</tr>
<tr>
<td>Ib Evidence from at least one randomized controlled trial</td>
<td></td>
</tr>
<tr>
<td>Ila Evidence from at least one controlled study without randomization</td>
<td></td>
</tr>
<tr>
<td>Ilb Evidence from at least one other type of quasi-experimental study</td>
<td></td>
</tr>
<tr>
<td>III Evidence from non-experimental descriptive studies, such as comparative studies, correlation studies and case-control studies</td>
<td></td>
</tr>
<tr>
<td>IV Evidence from expert committee reports or opinions and/or clinical experience of respected authorities</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Strength of recommendation</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>A Directly based on Category I evidence</td>
<td></td>
</tr>
<tr>
<td>B Directly based on Category II evidence or extrapolated recommendation from Category I evidence</td>
<td></td>
</tr>
<tr>
<td>C Directly based on Category III evidence or extrapolated recommendation from Category I or II evidence</td>
<td></td>
</tr>
<tr>
<td>D Directly based on Category IV evidence or extrapolated recommendation from Category I,II or III evidence</td>
<td></td>
</tr>
<tr>
<td>S Standard of care</td>
<td></td>
</tr>
</tbody>
</table>


- Quality of evidence: Ia, Ib, Ila, Ilb, III and IV
- Strength of recommendation:
  - +++ must do
  - ++ should do
  - + may do or not
  - +/- should not do
  - -- must not do
คำสั่งแต่งตั้งคณะทำงานโครงการพัฒานวิแนวปฏิบัติกาครูและผู้ป่วยหัวสารเสพติดเมทแอมเฟตามีน

ส่วนราชการสำนักบริการพยาบาลบุคคล กรมการแพทย์ กระทรวงสาธารณสุข ที่ ระเบียน ขธ. 1/2562 ลงวันที่ 26 มีนาคม 2562
เรื่อง ขอแต่งตั้งคณะทำงานโครงการพัฒนาแนวปฏิบัติการคุมผู้ใช้ยาเสพติดเมทแอมเฟตามีน

เรียน ผู้อำนวยการโรงพยาบาลบุคคล

ตามมติสภารัฐบาล กรมการแพทย์ ที่ ระเบียน ทต. 41/1262 ลงวันที่ 16 กรกฎาคม 2546 ได้กำหนดแผนงานการพัฒนาแนวปฏิบัติการคุมผู้ใช้ยาเสพติดเมทแอมเฟตามีน นั้น

บัดนี้กรมการแพทย์ได้ดำเนินการตามแผนงานดังกล่าวมีผลบ้านค้าสั่งการกรมการแพทย์ที่ รป.1/2546 ลงวันที่ 1 สิงหาคม 2546 ที่มีอาการข้อที่จะตอบสนองและดำเนินการในส่วนที่เกี่ยวข้องตัวอยู่เป็นพระคุณ

(นายไพโรจน์ หัสดุ)
นักทรัพยากรบุคคลสำนักงานการพัฒนา
รักษาราชการแทนผู้อำนวยการสำนักบริการพยาบาลบุคคล
บันทึกข้อความ

ส่วนราชการ โรงพยาบาลอัญชลีรักษ์เชียงใหม่ โทรศัพท์ 041-86 4644 โทรสาร 041-86 4645

ที่ 8 ส.ค. 1982 วันที่ 16 กรกฎาคม 2542
เรื่อง แต่งตั้งคณะทำงานโครงการพัฒนาแนวทางปฏิบัติการดูแลผู้มีปัญหาสารเสพติดแฝงยาเสพติด

เรียน ยศธิกรมการแพทย์

ตามที่ โรงพยาบาลอัญชลีรักษ์เชียงใหม่ ได้รับอนุมัติจากกรมการแพทย์ให้ดำเนินโครงการพัฒนาแนวทางปฏิบัติการดูแลผู้มีปัญหาสารเสพติดแฝงยาเสพติดในพื้นที่ มีวัตถุประสงค์เพื่อพัฒนาแนวทางปฏิบัติการดูแลผู้มีปัญหาสารเสพติดแฝงยาเสพติดในพื้นที่โดยให้การดูแลผู้ป่วยตามแนวทางปฏิบัติการดูแลผู้มีปัญหาสารเสพติดแฝงยาเสพติดในพื้นที่ ได้ร่วมกับสถาบันบำบัดเรือนจำและพื้นที่ดังกล่าว สำนักงานสาธารณสุขเชียงใหม่ โรงพยาบาลอัญชลีรักษ์เชียงใหม่ ระดมสรรพกำลังในการดำเนินงาน ตั้งแต่เดือนเมษายน 2542 - กุมภาพันธ์ 2543 นี้

ในการนี้ เพื่อให้การดำเนินงานเป็นไปอย่างมีประสิทธิภาพ และตามวัตถุประสงค์ที่กำหนดไว้ โรงพยาบาลอัญชลีรักษ์เชียงใหม่ จึงขอความร่วมมือจากกรมการแพทย์ในการแต่งตั้งคณะทำงานโครงการพัฒนาแนวทางปฏิบัติการดูแลผู้มีปัญหาสารเสพติดแฝงยาเสพติดในระดับกรมการแพทย์ต่อไป

จึงเรียนมาเพื่อโปรดพิจารณา หากเห็นชอบ ขอได้โปรดลงนามในคำสั่งแต่งตั้งคณะทำงานโครงการฯ ด้วย จึ่งเป็นที่ระลึกยิ่ง

เรียน ยศธิกรมการแพทย์ (ผู้พิพากษา)

สำนักบริหารทรัพยากรบุคคลได้ตรวจสอบคำสั่งแต่งตั้งคณะทำงานโครงการพัฒนาแนวทางปฏิบัติการดูแลผู้มีปัญหาสารเสพติดแฝงยาเสพติดในพื้นที่แล้ว ปรากฏว่าถูกต้องตามหลักเกณฑ์

จึงเรียนมาเพื่อโปรดลงนามและลงในคำสั่งตามแบบผู้พิพากษาด้วย จึ่งเป็นที่ระลึกยิ่ง

อธิบดี
ลงนามลงวันที่ 15 ก.ค. 2542

(นายกฤษร กสรีวัฒน์)
รองอธิบดี ปฏิบัติราชการแทน
คำสั่งกรมการแพทย์
ที่สพง.จ.1548
เรื่อง แต่งตั้งคณะทำงานโครงการพัฒนาระเบียบปฏิบัติการดูแลผู้มีปัญหาสารเสพติดตามแพทย์ทั่วไป
กรมการแพทย์ ปีงบประมาณ 2556

ด้วยกรมการแพทย์ได้อนุมัติให้โรงพยาบาลจุฬาลงกรณ์ชื่อใหม่ ดำเนินโครงการพัฒนาระเบียบปฏิบัติการดูแลผู้มีปัญหาสารเสพติดตามแพทย์ทั่วไป ร่วมกับสถาบันยาเสพติดจุฬาลงกรณ์และโรงพยาบาลจุฬาลงกรณ์ภูมิภาคทุกแห่ง เพื่อพัฒนาระเบียบปฏิบัติการดูแลผู้มีปัญหาสารเสพติดตามแพทย์ทั่วไป และเพื่อพัฒนาขั้นตอนเทคโนโลยีเพื่อการถ่ายทอด และให้การดูแลผู้ป่วยตามแนวร่วมร่วมรักษาการดูแลผู้มีปัญหาสารเสพติดตามแพทย์ทั่วไป ดังนั้นเพื่อให้การดำเนินงานเป็นไปด้วยความเรียบร้อยตามระเบียบของโครงการ จึงแต่งตั้งคณะทำงานดังนี้

1. ที่ปรึกษาโครงการประกอบด้วย
   1.1 นายจิริยะ สิริชานนท์ รองอธิบดีกรมการแพทย์
   1.2 ผู้อำนวยการสถาบันยาเสพติดจุฬาลงกรณ์
   1.3 ผู้อำนวยการโรงพยาบาลจุฬาลงกรณ์ที่ 2 แทน
   1.4 ผู้อำนวยการโรงพยาบาลจุฬาลงกรณ์สัญญาบัติกุล
   1.5 ผู้อำนวยการโรงพยาบาลจุฬาลงกรณ์ถมสิงห์
   1.6 ผู้อำนวยการโรงพยาบาลจุฬาลงกรณ์ประสาน
   1.7 ผู้อำนวยการโรงพยาบาลจุฬาลงกรณ์จุฬาภรณ์
   1.8 ดร.สุรินทร์ คลินเดอร์ คณะแพทยศาสตร์ มหาวิทยาลัยเชียงใหม่
   1.9 ดร.ภริยาวรรณ ติ่งเป็นท่า คณะแพทยศาสตร์ มหาวิทยาลัยเชียงใหม่

2. คณะทำงานโครงการ
   2.1 โรงพยาบาลจุฬาลงกรณ์ชื่อใหม่
      นายประสงค์ สำราญทิพย์ ผู้อำนวยการ หัวหน้าโครงการ
      นายยศิติ รัชญาณูสิทธิ์ โรงพยาบาลจุฬาลงกรณ์ ผู้ช่วยหัวหน้าโครงการ
      นางนภัสสรณ์ รังสีโรจน์ โรงพยาบาลจุฬาลงกรณ์ ผู้ช่วยหัวหน้าโครงการ
      นางบุญ สาธารณสุข โรงพยาบาลจุฬาลงกรณ์ ผู้ช่วยหัวหน้าโครงการ
      นายบุญ ทิพย์สุภัย โรงพยาบาลจุฬาลงกรณ์ ผู้ช่วยหัวหน้าโครงการ
      นางสาวนงนุช รัชญาณูสิทธิ์ โรงพยาบาลจุฬาลงกรณ์ ผู้ช่วยหัวหน้าโครงการ
      นางพจน์ วิชัยศิริ โรงพยาบาลจุฬาลงกรณ์ ผู้ช่วยหัวหน้าโครงการ
      นางสาวสิริ รัชญาณูสิทธิ์ โรงพยาบาลจุฬาลงกรณ์ ผู้ช่วยหัวหน้าโครงการ
      นางสาวนงนุช รัชญาณูสิทธิ์ โรงพยาบาลจุฬาลงกรณ์ ผู้ช่วยหัวหน้าโครงการ
      นางสาวสิริ รัชญาณูสิทธิ์ โรงพยาบาลจุฬาลงกรณ์ ผู้ช่วยหัวหน้าโครงการ
The Working Group on Recommendations for Health Care Providers in the Treatment of Methamphetamine Use Disorders

**Expert group**

<table>
<thead>
<tr>
<th>Name</th>
<th>Position</th>
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<tbody>
<tr>
<td>Asst. Prof. Apinun Aramrat</td>
<td>Department of Family Medicine, Faculty of Medicine, Chiang Mai University</td>
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<tr>
<td>Dr. Phunnapa Kittirattanapaiboon</td>
<td>Director, Bureau of Mental Health Services Administration, Department of Mental Health</td>
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<tr>
<td>Dr. Boonsiri Junsirimongkol</td>
<td>Director, Mental Health Center 1, Department of Mental Health</td>
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<tr>
<td>Miss Jongrak Insavek</td>
<td>National Command Centre for Drugs Elimination, Ministry of Public Health</td>
</tr>
<tr>
<td>Mr. Jirawit Yanchinda</td>
<td>College of Arts, Media and Technology, Chiang Mai University</td>
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<tr>
<td>Dr. Sunisa Suktrakul</td>
<td>Faculty of Nursing, Chulalongkorn University</td>
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<tr>
<td>Mrs. Waraporn Wanchaitanawong</td>
<td>Boromarajonani College of Nursing, Chiang Mai</td>
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<tr>
<td>Dr. Adchara Khammathit</td>
<td>Boromarajonani College of Nursing, Udon Thani</td>
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<tr>
<td>Dr. Rak Raktrakul</td>
<td>Lampang Hospital</td>
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<tr>
<td>Dr. Patawee Pariyanupap</td>
<td>Nakornping Hospital</td>
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**Supervisors**

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<th>Name</th>
<th>Department</th>
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<tr>
<td>Asst. Prof. Surinporn Likhitsathian</td>
<td>Department of Psychiatry, Faculty of Medicine, Chiang Mai University</td>
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<tr>
<td>Assoc. Prof. Dr. Darawan Thapinta</td>
<td>Faculty of Nursing, Chiang Mai University</td>
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</tbody>
</table>
**Recommendations for Health Care Providers in the Treatment of Methamphetamine Use Disorders**

**Princess Mother National Institute on Drug Abuse Treatment (PMNIDAT)**

1. Dr. Apichart Ranuwa
2. Mrs. Nipawan Boontabtom
3. Mrs. Sombat Magun

**Thanyarak Chiang Mai Hospital**

1. Dr. Worapong Samrantiwawan
2. Dr. Apisak Wittayanookulluk
3. Mrs. Napatsorn Rungsivaroj
4. Dr. Danai Indrakamhaeng
5. Dr. Yanisa Phothitirat
6. Dr. Amornphit Kittipodjanasit
7. Dr. Wanpansa Ausavarat
8. Miss Wallee Mitmanochai
9. Miss Naranchaya Sriburapar
10. Miss Macharee Wongyai
11. Mrs. Repeeporn Wisuthi
12. Mrs. Aranya Phajuy
13. Miss Kuanchanok Tejafong
14. Mrs. Monthira Maetha
15. Mr. Sarun Keeratiphongsathorn
16. Miss Sorawan Intasit
17. Mrs. Chanittha Maiplang
18. Mr. Bunyat Tongtos
19. Miss Sungwan Wongmoon
20. Miss Rungtiwa Jaija
21. Mrs. Saowaluk Jaifong

**Titles and Levels**

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<tr>
<th>Medical Physician</th>
<th>Professional Level</th>
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<tr>
<td>Dr. Apichart Ranuwa</td>
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<td>Mrs. Nipawan Boontabtom</td>
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<th>Director</th>
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<td>Dr. Worapong Samrantiwawan</td>
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<tr>
<td>Miss Macharee Wongyai</td>
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<th>Occupational Therapist, Practitioner Level</th>
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<td>Mrs. Repeeporn Wisuthi</td>
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Recommendations for Health Care Providers in the Treatment of Methamphetamine Use Disorders

Thanyarak Khon Kaen Hospital
1. Dr. Chanchai Thongphanit
2. Mrs. Chanpeng Moonsri
3. Miss Kannika Sittipong

Thanyarak Songkhla Hospital
1. Dr. Tawat Lapinee
2. Dr. Thanurat Buddhachart
3. Mrs. Monthatip Boonmanee
4. Mrs. Jampa Singkara
5. Mrs. Dararut Sathornpun

Thanyarak Udon Thani Hospital
1. Dr. Nattaporn Apisiridech
2. Mrs. Sukanya Kanchanabat

Thanyarak Pattani Hospital
1. Dr. Adisak Ngamkajornviwat
2. Mrs. Rattiya Sanseree
3. Mrs. Rodiyah Jehsoh
4. Miss Pantipa Thongsalub
5. Miss Phongphan Inlek

Thanyarak Mae Hong Son Hospital
1. Dr. Weerawat Ukranun
2. Mrs. Puangtip Sungketjai
3. Miss Phannapa Ruangkij
4. Miss Tawikarn Chaikaew
Recommendations for Health Care Providers in the Treatment of Methamphetamine Use Disorders
Recommendations for Health Care Providers in the Treatment of Methamphetamine Use Disorders

Thanyarak Chiang Mai Hospital, 182 moo7, Khee-Lek sub district, Mae Rim district, Chiang Mai 50180
Phone : 053-298082-5 www.tch.go.th