- The 3rd International Mental Health Training Center Taiwan Online Conference
- The 8th Kaohsiung Municipal Hospital Strategy Seminar

Trend of Drug Addiction Treatment:

From International Principles to the Current Condition in Taiwan

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Taipei, Taiwan

11/11/2020

Taipei City Psychiatric Center (TCPC)
viewed from Elephant Mountain

Taipei City Psychiatric Center (TCPC), Taipei, Taiwan

Campus 1: main building:
acute/ICU; administrative area

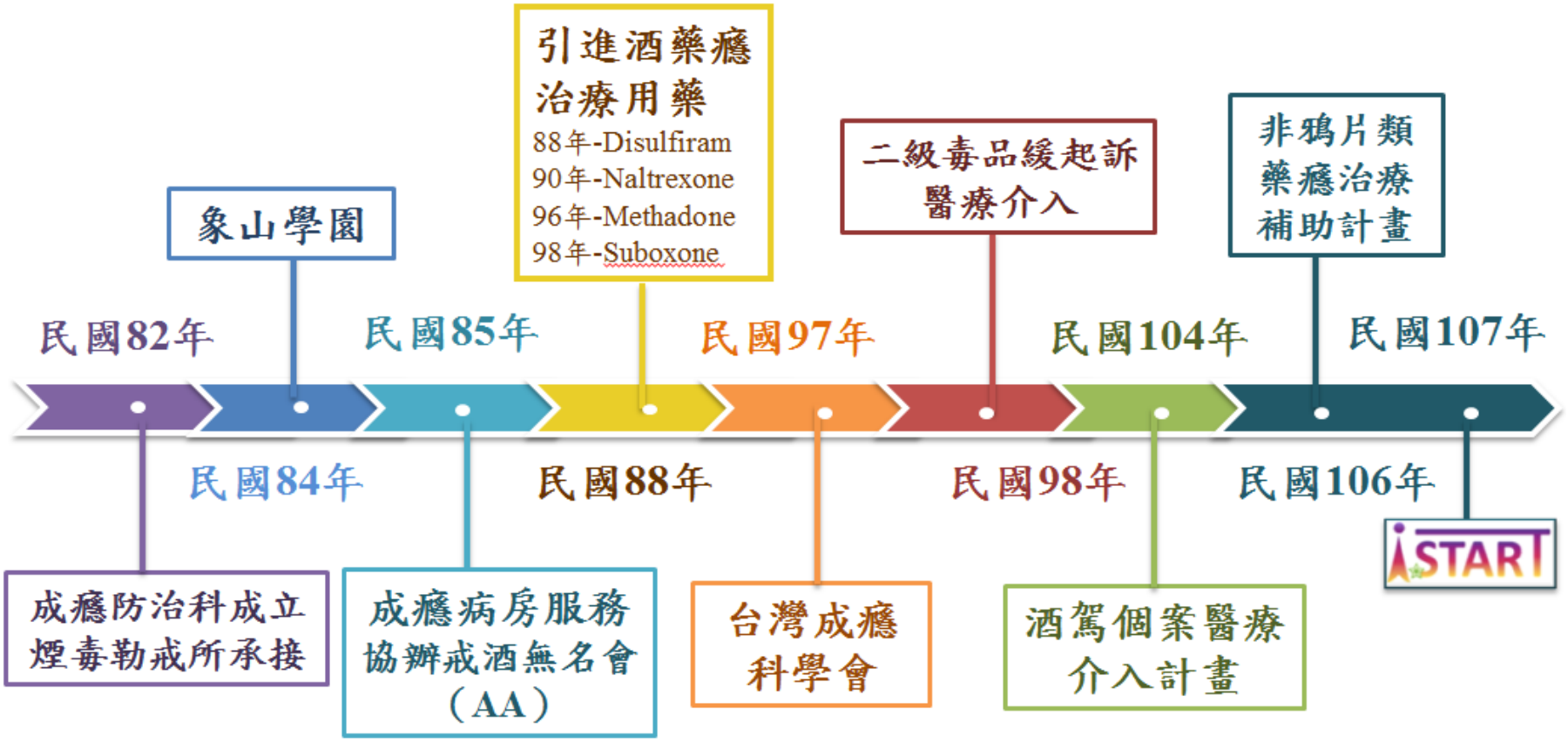
Campus 3: Adolescent DH

Campus 3: rehab buiding

Campus 5: psychotherapy building

松德院區成癮科

多項全國首推服務與研究、重視服務/教學/研究



整合性藥癮醫療示範中心
Institute of Substance Treatment And Research in Taipei (ISTART)

聯合十二家醫院、五家診所、五個行政區、跨年齡與跨制度

Institute of Substance Treatment And Research in Taipei

The service for addiction treatment

Addiction inpatient ward (20+12 = 32 beds): 313 new admissions in 2019, 26 new admissions/month

Addiction OPD: 1,500 patients under service/ month

- Number of patients referred for deferred prosecution as a conditional treatment: nearly 700 in 2019 (=691)

Why do we have to deal with drug use problems

- **Criminal problems** (physical assault, sex offense, arson, robbery…)
- DUI, traffic accidents
- Domestic violence
- **Increase the social costs** (productivity, medical care, imprisonment, family burden, social welfare
- Social isolation
- Unemployment
- Physical illnesses
- **Mental disorders:** psychosis, depression, anxiety, suicide

Disability

Next generation?

Lopez *et al. BMC Medicine* 2014, **12**:200
http://www.biomedcentral.com/1741-7015/12/200

Medicine for Global Health

BMC Medicine

FORUM Open Access

Remembering the forgotten non-communicable diseases

2014

Alan D Lopez[1*], Thomas N Williams[2,3], Adeera Levin[4], Marcello Tonelli[5], Jasvinder A Singh[6,7,8], Peter GJ Burney[9], Jürgen Rehm[10,11,12,13,14], Nora D Volkow[15], George Koob[16] and Cleusa P Ferri[17,18]

Figure 12 Nora D Volkow is Director of the National Institute on Drug Abuse; a position she had held since 2003. Her research transformed the drug addiction field by providing the first evidence for specific molecular (loss of striatal D2 receptors) and functional (impaired frontal control circuitry) changes in brains of addicted individuals that link to compulsivity and loss of control. She has also made ground-breaking discoveries in the neurobiology of ADHD and obesity.

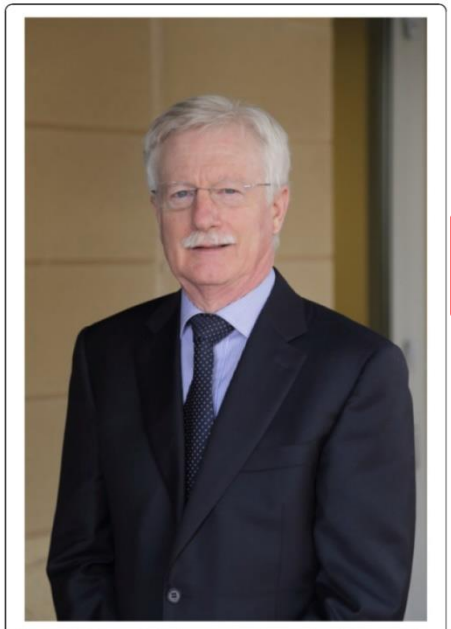
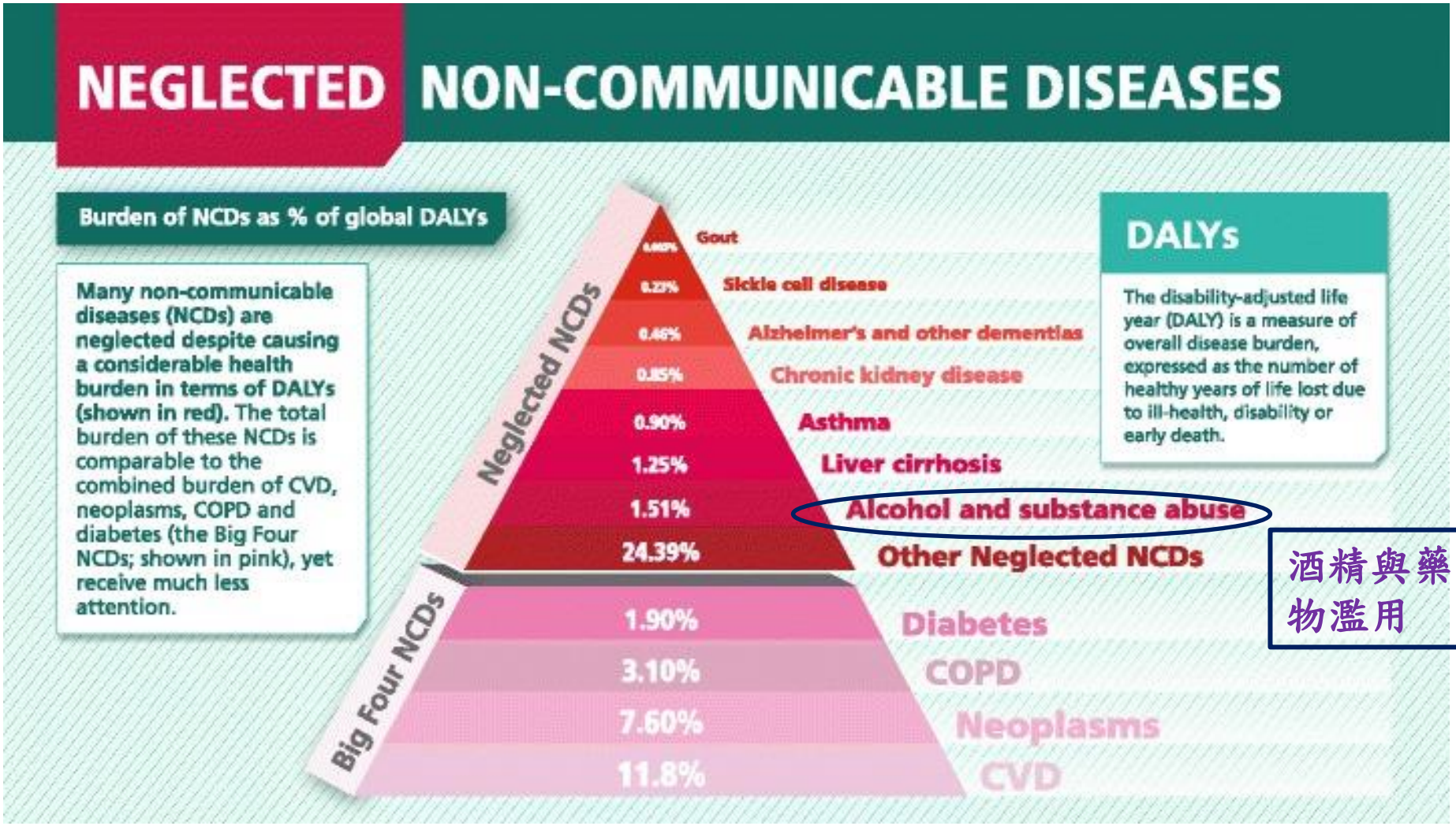


Figure 13 George F. Koob was recently appointed Director of the National Institute on Alcohol Abuse and Alcoholism after 30 years at The Scripps Research Institute in La Jolla California. His research has focused on the dysregulation of the brain arousal and stress systems that drive compulsive drug and alcohol seeking. He has made significant contributions to our understanding of the neurocircuitry of negative emotional states and their role in pathophysiology.

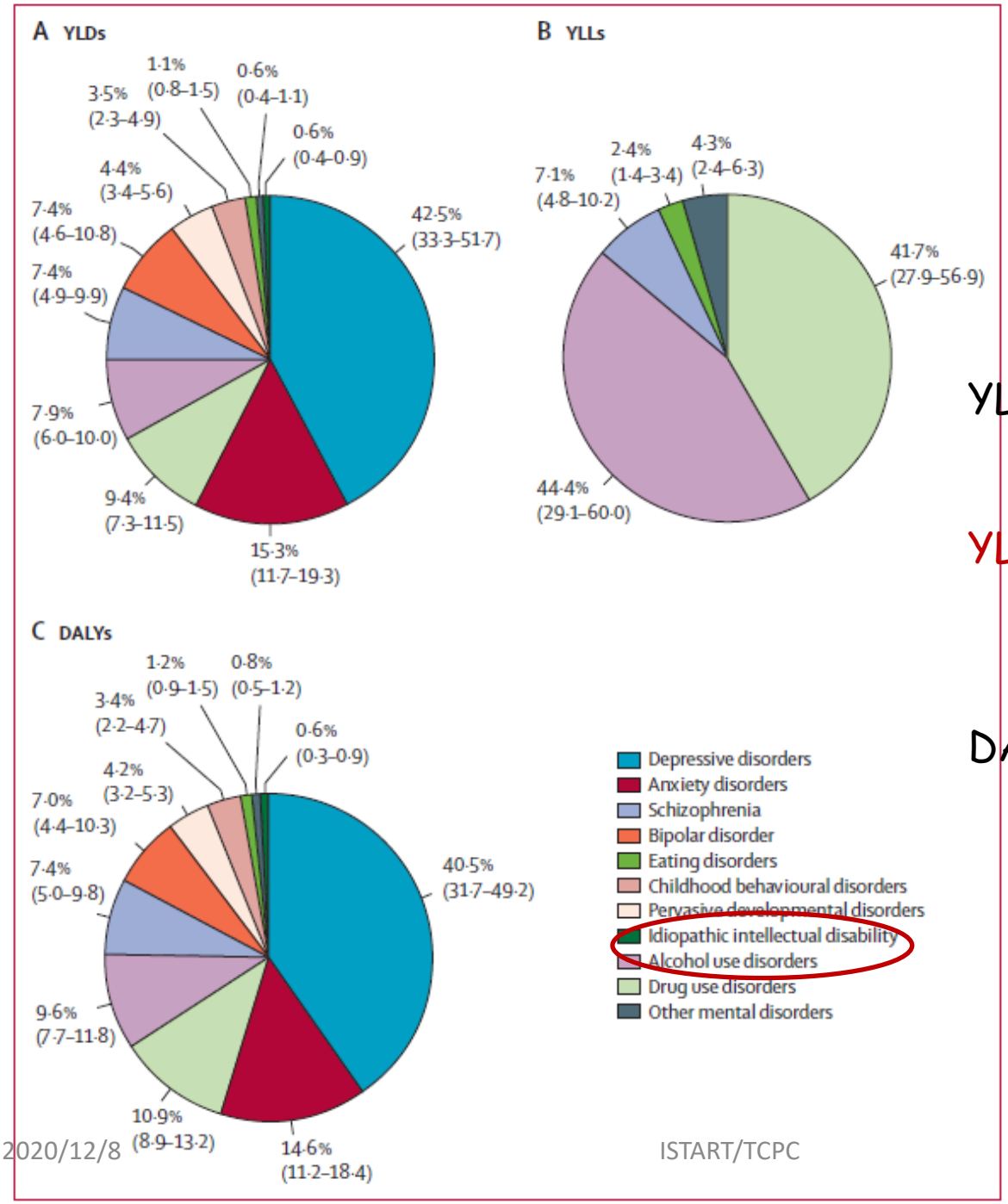
被遺忘的非傳染性疾病

被遺忘/忽略的非傳染病



DALYs: The disability-adjusted life year (DALI): 失能調整人年

疾病負擔的指標

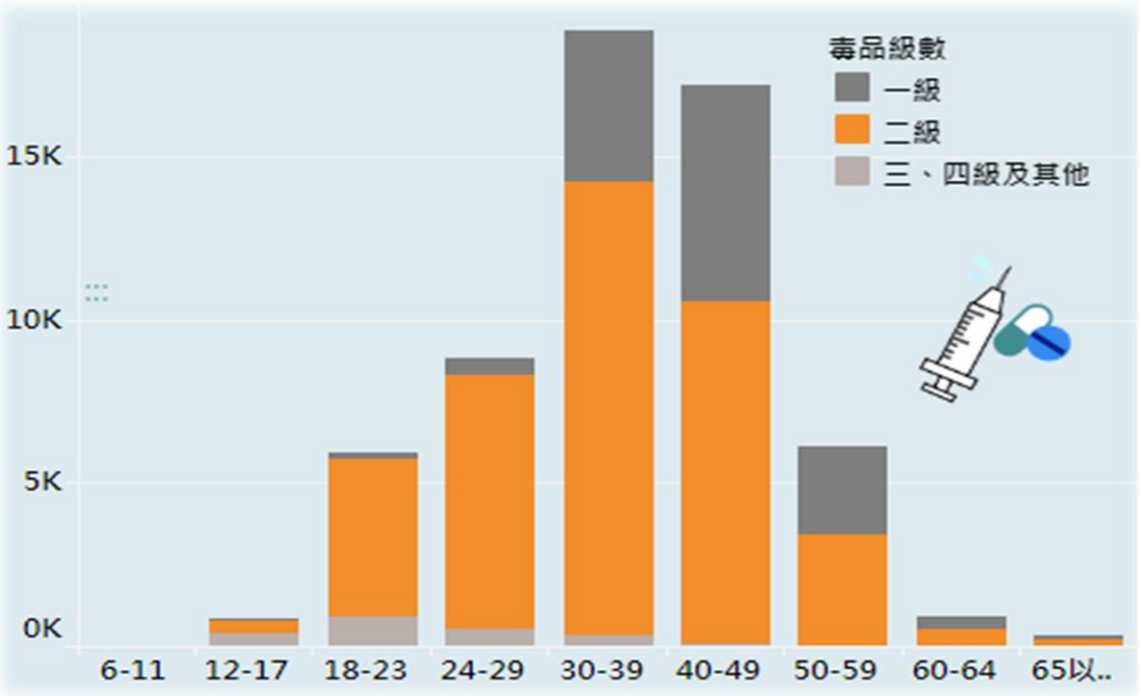


YLD: years lived with disability失能損失年數

YLL: years of life lost to premature mortality
年壽損失年數

DALYs: 失能調整損失人年

Prevalence in 2018 in Taiwan (data from legal system)



Heroin

- Methamphetamine
- Cannabis
- MDMA

UNODC
United Nations Office on Drugs and Crime

World Health Organization

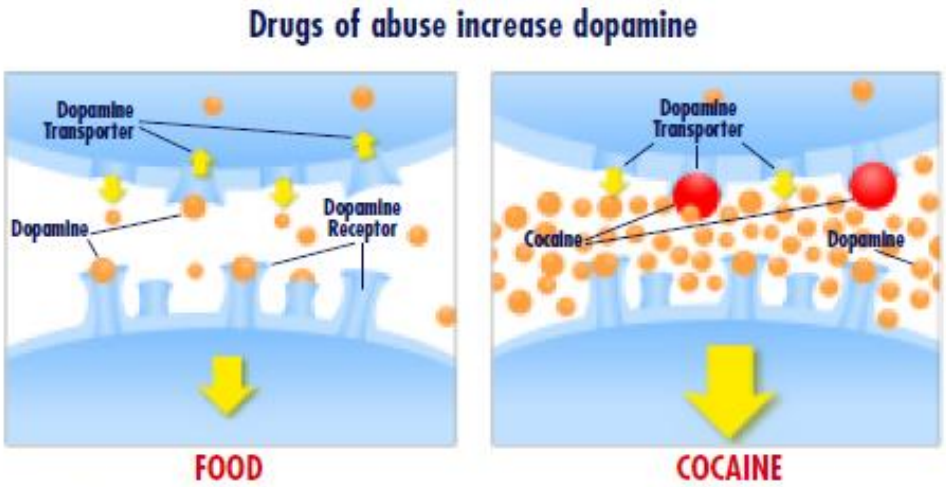
Principles of Drug Dependence Treatment

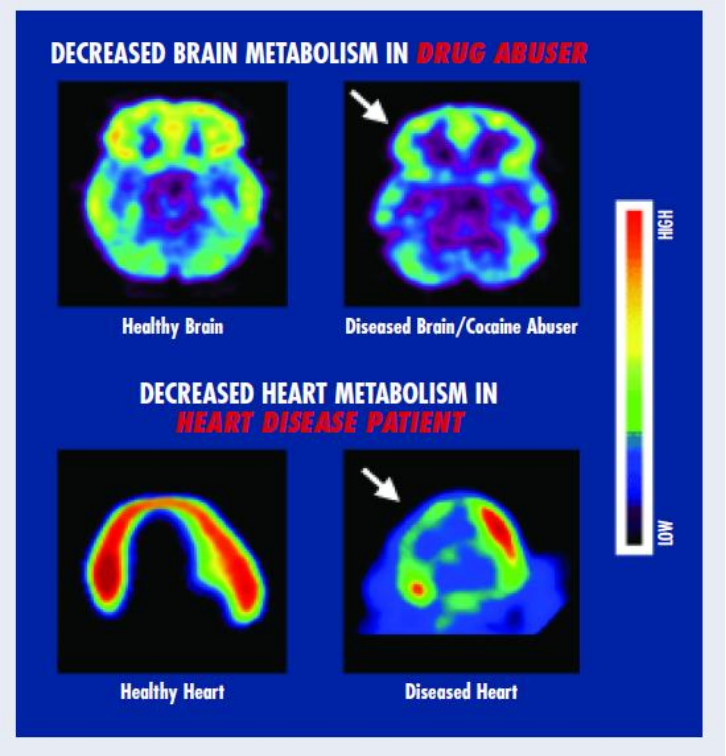
205 million people use illicit drugs, 25 million (≈ 1/8) have illicit drug dependence

To begin with~~開宗明義

Drug addiction is a brain disease that affects behavior.

藥癮屬於大腦疾病，且會影響行為



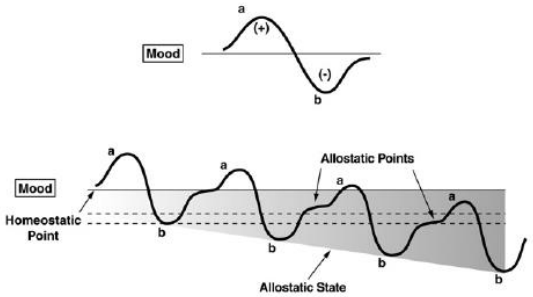


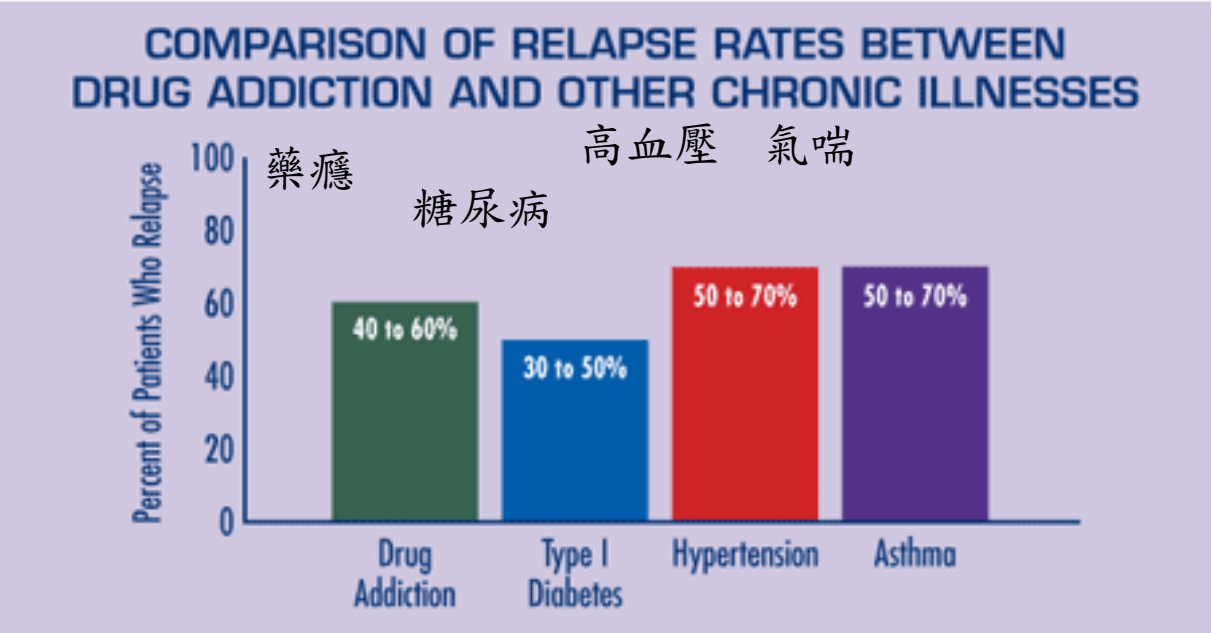
Receptor down-regulation

- Addictive substance alters the function of brain (成癮物質改變腦部的功能)

Drug Dependence

- Multi-factorial health disorder that often follows the course of a relapsing and remitting chronic disease, like DM or hypertension.



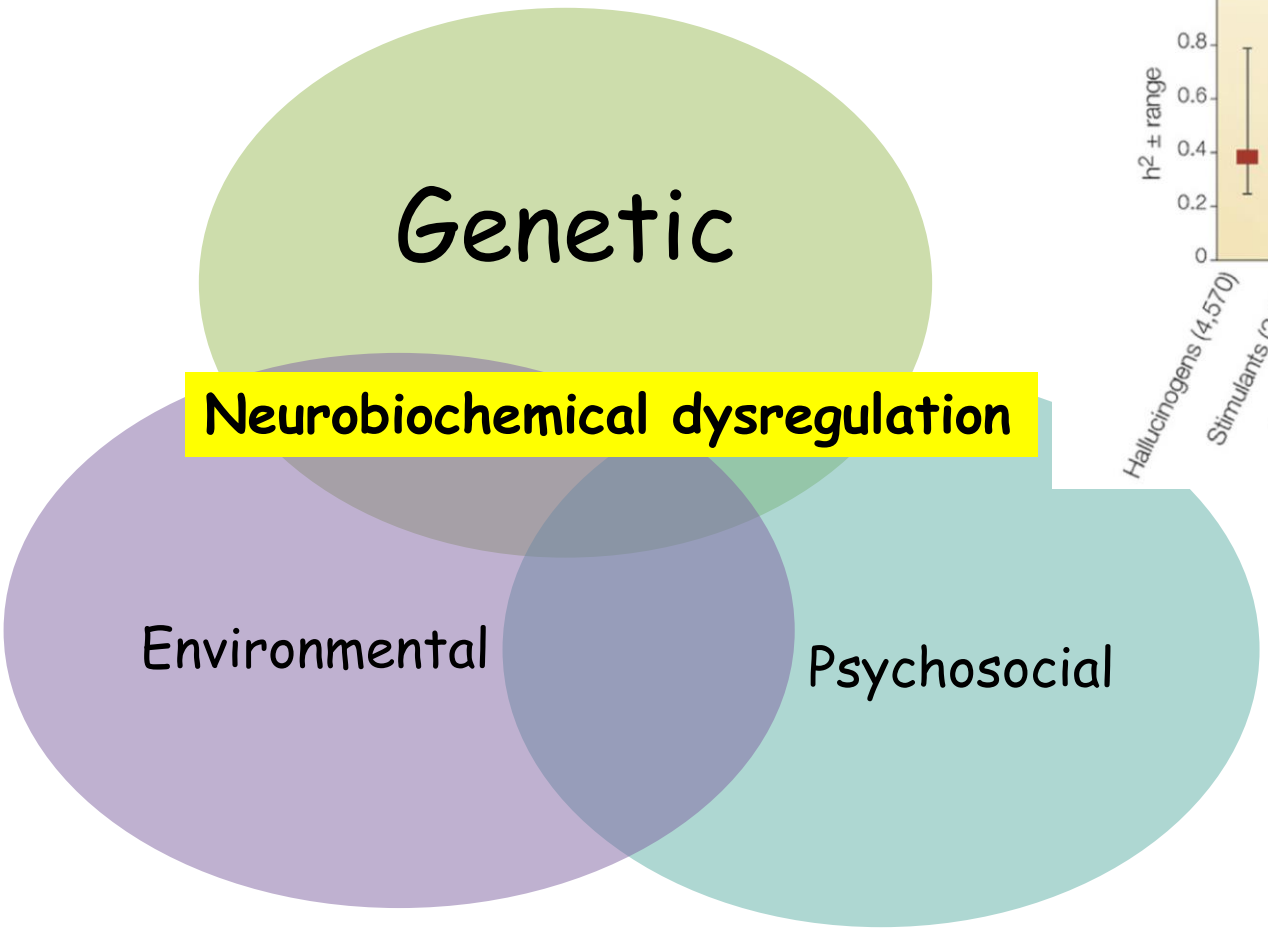


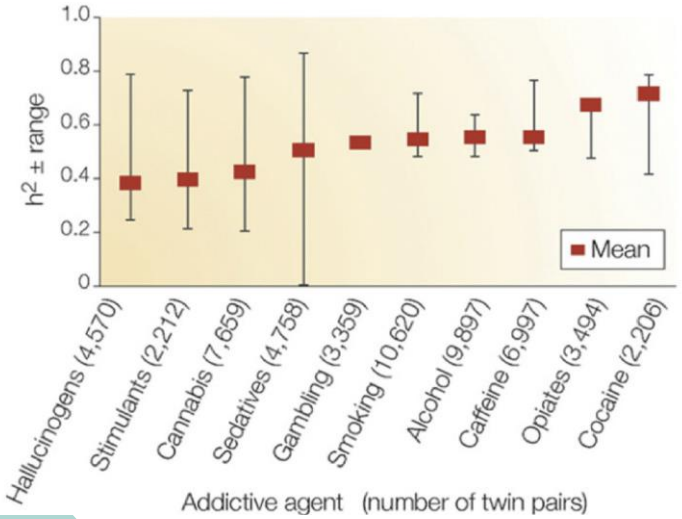
JAMA, 284:1689-1695, 2000

Relapse does not stand for treatment failure, but a sign for the need of treatment adjustment

復發不代表介入/治療失敗，而是要**調整或討論治療內容**

The development of the disease is a result of a complex multi-factorial interaction between repeated exposure to drugs, and biological and environmental factors.

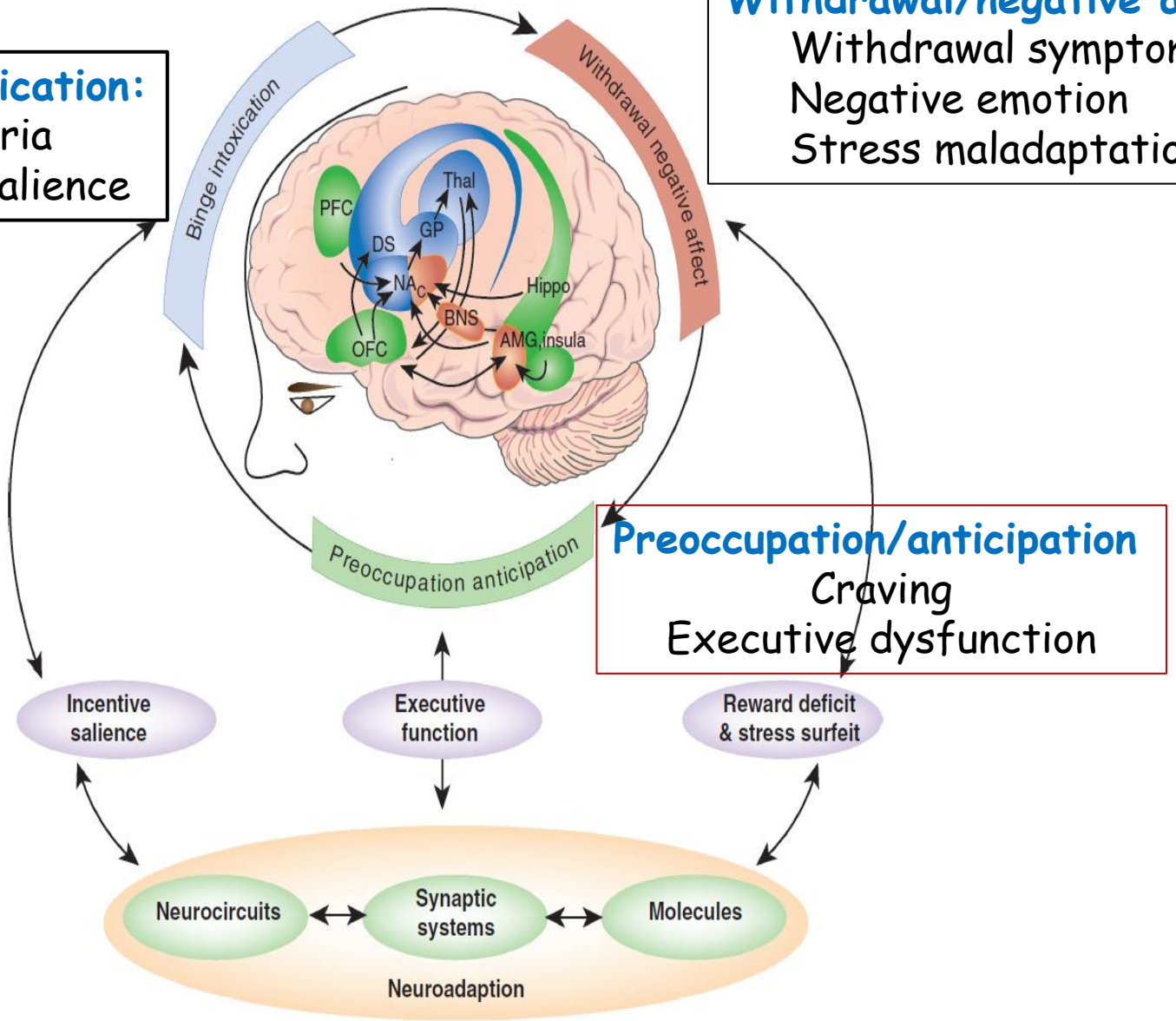




Nat Rev Neurosci, 2004

Binge/Intoxication:
Euphoria
Incentive salience

Withdrawal/negative affect :
Withdrawal symptoms
Negative emotion
Stress maladaptation



Preoccupation/anticipation
Craving
Executive dysfunction

Treatment vs. Intervention

Science (Neuroscience)-based (Medical) Model
vs Drug Model

Stigmatization of drug Dependence

- Unfortunately, still not recognized as a health problem, but **stigmatized** with no access to treatment and rehabilitation.
  - "self-acquired disease", based on individual free choice leading to the first experimentation with illicit drugs, has contributed to stigma and discrimination associated with drug dependence.

Drug Dependence

- A ***preventable*** and ***treatable disease*** （可避免與治療的疾病）

- Attempts to treat and prevent drug use through tough penal sanctions for drug users fail because **they do not take into account** the neurological changes drug dependence has on motivation pathways in the brain （大多數國家或政府仍將為法律制裁視為避免或治療的手段，未能將藥癮的腦神經變化列入考慮）

9 Principles
of Drug Addiction Treatment

(from UNODC)

原則一、藥癮治療的可得性與可近性-1
Principle 1: Availability and Accessibility of Drug Dependence Treatment-1

- 可近性、分布、與連結: 社福團體、學校、自助團體可成為隱族群和治療初次接觸的entry points，這也連帶說明 outreach的重要性
- 服務時間(opening hours)的及時性與彈性: 待床時間短、對有工作或家庭照護責任的個案有彈性服務時間

- Geographical accessibility, distribution and linkages: schools, civil society organizations, and self help groups can serve as entry points of first contact for potential patients and help them access treatment, Outreach services are particularly important
- Timeliness and flexibility of opening hours: short waiting time for structured services or a wide range of opening hours will facilitate access to services for individuals with employment or family responsibilities.

原則一、藥癮治療的可得性與可近性-2
Principle 1: Availability and Accessibility of Drug Dependence Treatment-2

- Availabilities of low threshold services: 如住院條件門檻
- Affordability
- Legal framework: 不會因求醫就導致制裁
- 因應文化特色、友善性、中立態度

- Availabilities of low threshold services: includes patient admission criteria.
- Affordability
- Legal framework: guarantee protection from potential sanctions for those seeking treatment.
- Cultural relevance, user friendliness, non-judgemental

- 毒品危害防制條例
  - 第二十一條：犯第十條之罪者，於犯罪未發覺前，自動向行政院衛生署指定之醫療機構請求治療，醫療機構免將請求治療者送法院或檢察機關。

（第十條：施用第一級毒品者，處六月以上五年以下有期徒刑。 施用第二級毒品者，處三年以下有期徒刑。）

原則一、藥癮治療的可得性與可近性-3

Principle 1: Availability and Accessibility of Drug Dependence Treatment-3

- 精神病理的個案，如共病成癮和精神疾病的個案
- 司法犯罪系統: 司法系統和健康照護系統合作，支持治療的轉介。
- 性別特色考量：如懷孕婦女、孩童照護…

- Individuals with psychopathology: e.g., patients with drug dependence and associated somatic or psychiatric disorders
- Criminal justice system: law enforcement officials, courts and prisons may closely collaborate with the health system to encourage drug dependent individuals to enter treatment.
- Gender-sensitiveness of services: e.g., pregnancy, child care needs…

精神科對成癮疾患的處理 (Psychiatric management for patients with addictive disorders)

- 緩和/治療中毒，戒斷症狀，以及嚴重併發症 (alleviation/treatment of intoxication, withdrawal symptoms, and serious complications)
- 建立/達成一個alcohol-free 或drug-free state，準備進一步之**復健治療或停用之維持治療** (achieve an alcohol- or drug-free state for further rehab or maintenance treatment)
  - 藥物治療 (pharmacotherapy)
  - 治療共病之精神疾患，如精神病、憂鬱症、焦慮症、失眠等 (psychiatric comorbidity treatment, e.g. psychosis, depression, anxiety, insomnia etc.)
  - 非藥物治療 (non-pharmacotherapy)：
    - 復發防範/動機促進等認知行為治療（團體心理治療或個別心理治療型式） (relapse prevention/motivational enhancement)(individual/group/family psychotherapy)
    - 自助團體：narcotic anonymous, alcoholic anonymous

Pharmacotherapy

Tobacco Addiction (菸癮)

- Nicotine replacement therapies (available as a patch, inhaler, or gum)
- Bupropion
- Varenicline

Opioid Addiction(鴉片類成癮)

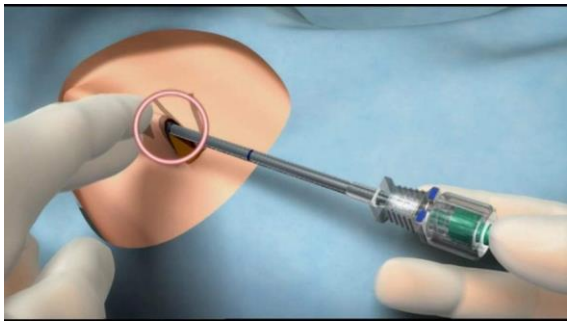
- Methadone
- Buprenorphine: sublingual, LAI, implant, buccal film
- Naltrexone

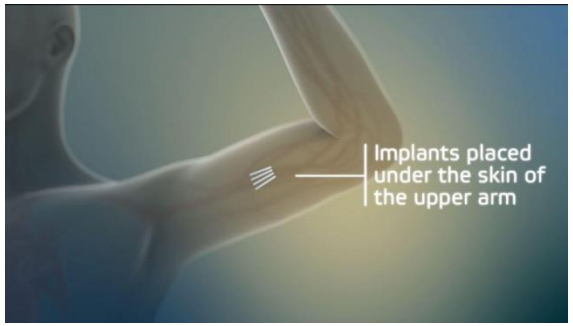
Alcohol and Drug Addiction (酒癮)

- Naltrexone
- Disulfiram
- Acamprosate

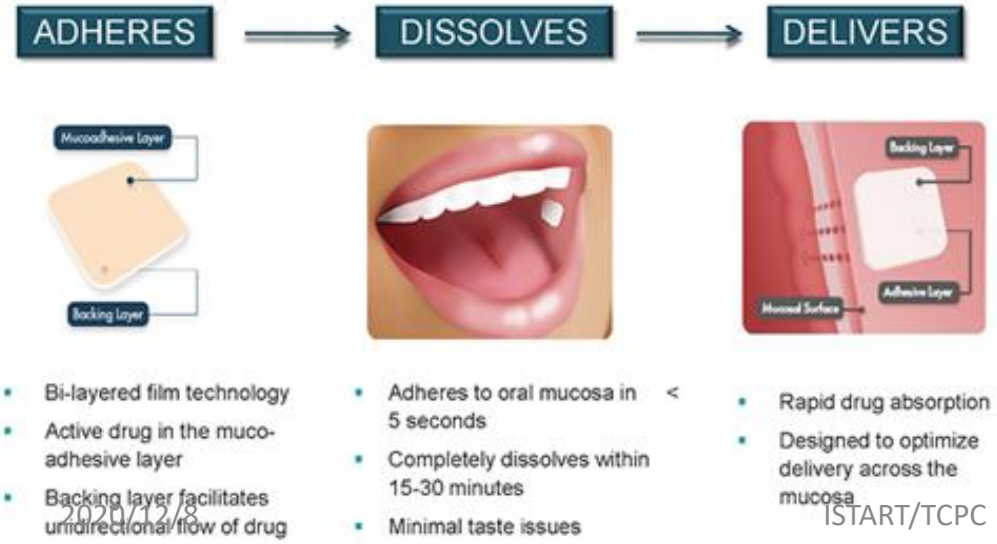
Sublocade™
(buprenorphine extended-release) injection for subcutaneous use ©
100mg·300mg

Long-term injection
Once monthly
FDA: 2017, Nov 30





Implants
6 month
FDA: 2016, May 26



Bunavail: Suboxone buccal film

FDA: 2017, May 02

Non-pharmacotherapy

Psychosocial treatment

- Individual psychotherapy
- Group psychotherapy
- Couple therapy
- Family therapy

- **Approach**
  - Motivational enhancement
  - 12 steps
  - Cognitive behavioral therapy (CBT)

- **Self-help group**
  - narcotic anonymous (NA),
  - alcoholic anonymous (AA)

原則二：篩檢、評估、診斷、治療計畫-1

Principle 2: Screening, Assessment, Diagnosis and Treatment Planning-1

- Screening: 工作人員要熟悉如何辨識危險使用者、藥癮、危險行為(不安全性行為、暴力、自殺)(多引入點: 一般醫療、學校、諮商服務、工作單位)
- Assessment and diagnosis: 成癮與精神科共病

- Screening: standardized tools to identify individuals with hazardous or harmful drug use, or drug dependence, as well as associated risk behaviors (unprotected sexual activity, potential violent behavior, suicide risk) (multiple entry points: primary health care system, school health and counselling services, and employee assistance programmes at work places)
- Assessment and diagnosis: drug use disorders and associated psychiatric co-morbidity

Screening

Addictive Behaviors 33 (2008) 1590–1593

Contents lists available at ScienceDirect

Addictive Behaviors

Short communication

Severity of heroin dependence in Taiwan: Reliability and validity of the Chinese version of the Severity of Dependence Scale (SDS[Ch])

Vincent Chin-Hung Chen [a,b], Hong Chen [c], Tsang-Yaw Lin [c], Hwey-Hwang Chou [d], Te-Jen Lai [a,b], Cleusa P. Ferri [e], Michael Gossop [e,*]

Chinese version of the Severity of Dependence Scale (SDS): 陳錦宏醫師

Addiction Severity Index Lite version (ASI-LITE): 李思賢教授

S-BI-RT

Screening (篩檢)

Brief Intervention (簡短介入)

Referral to treatment (轉介治療)

Car
Relax
Alone
Family
Friends
Trouble

SBIRT Screening Protocol

SBIRT: Screening-Brief Intervention & Referral to Treatment

- A nationally recognized SAMHSA supported screening PROTOCOL with a strong research base demonstrating effectiveness
- It's relatively low-tech and brief – 5 to 10 minutes
- It's universal – anyone can be screened as part of a standard intake process
- It targets alcohol and other drugs

S-BI-RT

Screening-brief intervention-referral to treatment

在過去12個月以來，是否有以下情形：

1. 曾經喝過酒嗎(超過數口以上程度)？
2. 曾吸食過大麻？
3. 曾服用任何物質(含非法藥物或非處方用藥)讓自己感覺比較好？

完全沒有

讚美並鼓勵

"你選擇不使用藥物或酒精是一個非常好的決定，要繼續保持下去"

詢問CRAFFT中 "C項目"

其一符合

評估 CRAFFT

C = 曾經搭乘因喝酒或用藥而很"亢奮"的人(包括自己)所駕**車或騎車**？

R = 曾經喝酒或用藥**以達放鬆**、或讓自己感覺更好？

A = 曾經**獨自**喝酒或用藥？

F = 曾經**遺忘**喝酒或用藥時發生的事？

F = 家人或**朋友**曾經為了你好希望你停止喝酒或用藥？

T = 曾因喝酒或用藥而惹上**麻煩**?

C項目符合

"請勿再次搭乘有危險駕駛疑慮之車輛，因為人容易錯估情勢。"

www.sadd.org/contract.htm

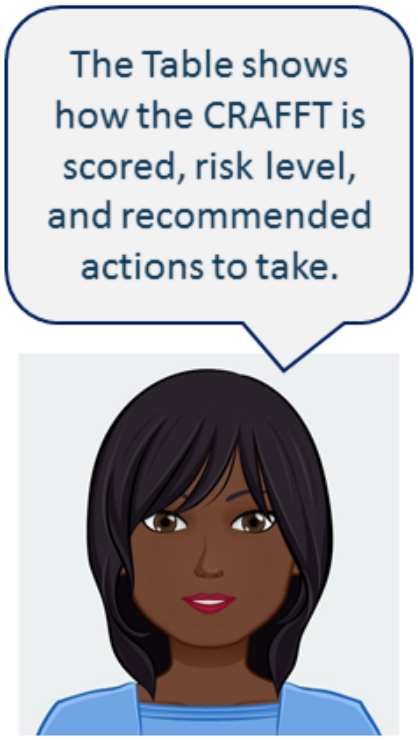
During the **PAST 12 MONTHS**, did you:

1. Drink any alcohol (more than a few sips)?

Do not consider sips of alcohol taken during family or religious events.

2. Smoke any marijuana or hashish?
3. Use anything else to get high?

CRAFFT Score, Risk Level and Recommended Action



Score	Risk Level	Recommended Action
"No" to 3 opening questions	No risk	Positive reinforcement
"Yes" to car question	Riding risk	Discuss alternatives to riding with impaired drivers
CRAFFT score = 0	Medium risk	Brief advice
CRAFFT score = 1		Brief intervention
CRAFFT score ≥ 2	High risk	Consider referral for further assessment (delivered through brief intervention)

原則二：篩檢、評估、診斷、治療計畫-2
Principle 2: Screening, Assessment, Diagnosis and Treatment Planning-2

- Comprehensive assessment: 成癮嚴重度、身體疾病、精神科共病、人格特質、職業史與工作狀況、家庭與社交、法律問題、成長/學業史、幼時創傷、過去就醫史、家族史...

- Comprehensive assessment: severity of drug use disorders , somatic and mental health status, individual temperament and personality traits, vocational and employment status, family and social integration, and legal situation, childhood and adolescent history, family history and relationships, social and cultural circumstances, and previous treatment attendance.

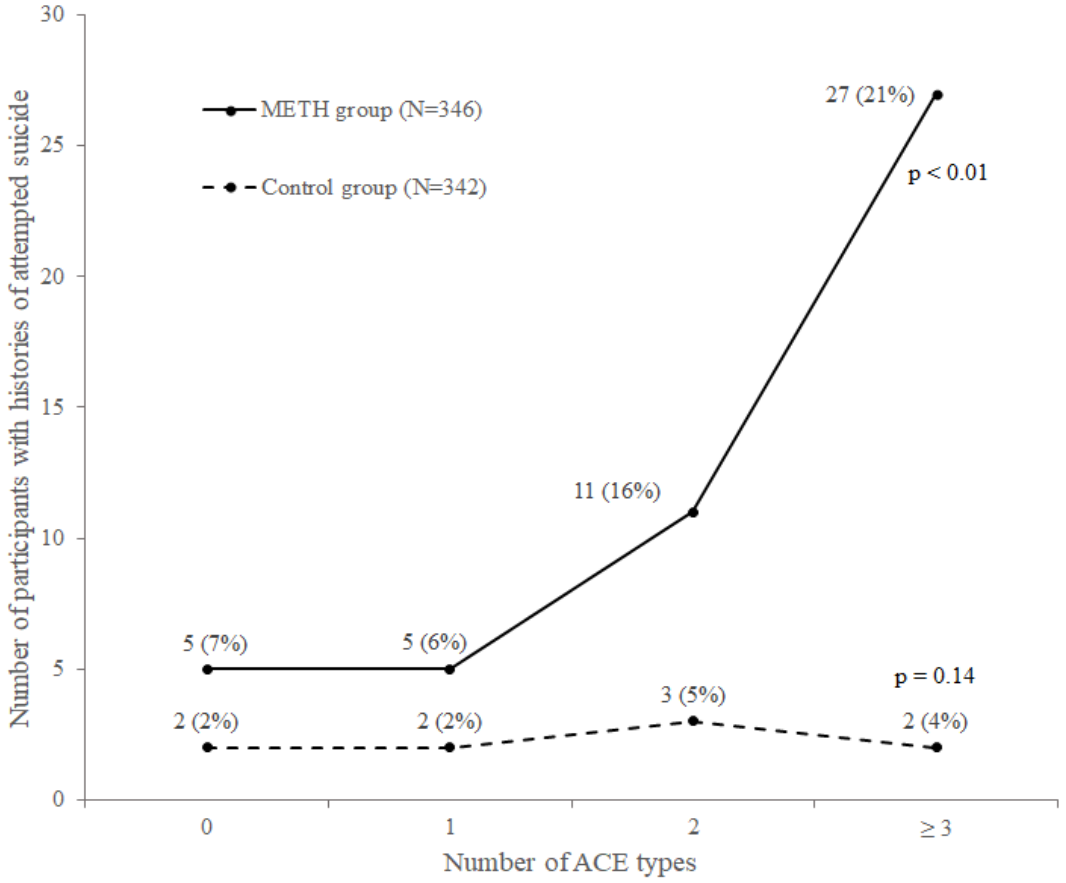
Original Article

Reliability and Factor Structure of the Chinese Version of Childhood Trauma Questionnaire-Short Form in in Patients with Substance Use Disorder

Ying-Chih Cheng, M.D.[1,5], Chun-Hsin Chen, M.S., M.D.[2,3], Kuan-Ru Chou, M.D.[4], Po-Hsiu Kuo, Ph.D.[5,6], Ming-Chyi Huang, M.D., Ph.D.[3,7,*]*

C-CTQ-SF scale scores (mean ± SD), (%)§	N = 160	(%)
Physical abuse	7.7 ± 3.8	(35)
Emotional abuse	8.4 ± 3.4	(38)
Sexual abuse	5.8 ± 1.6	(29)
Emotional neglect	12.3 ± 4.8	(71)
Physical neglect	9.4 ± 3.1	(70)

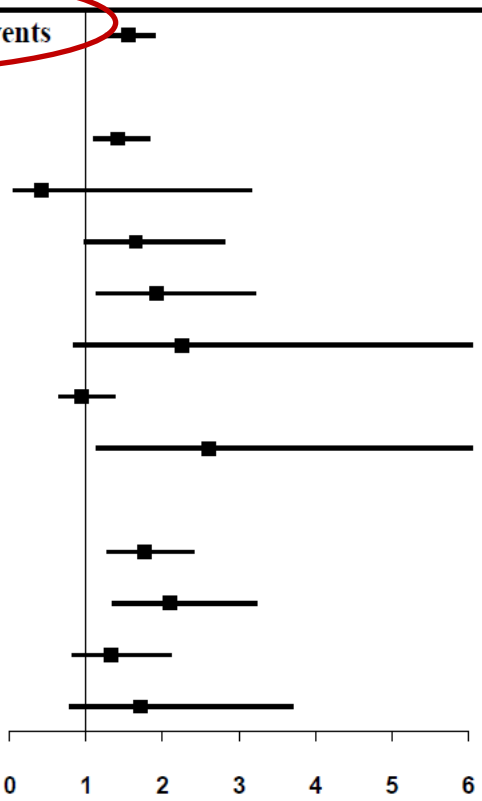
Cochran-Armitage trend analyses for the reported number of childhood trauma types (0, 1, 2, or ≥ 3) and histories of attempted suicide for the methamphetamine and control groups.



台南明星師「周湯豪」猝死 死因逆轉!搜出針筒吸毒暴斃!

The risk of cardiovascular diseases and stroke events in methamphetamine users→ routine BP assessment

	Hazard Ratio[a]	95% CI Upper Limit	95% CI Lower Limit	P-value
Cardiovascular diseases and Stroke events	**1.55**	**1.25**	**1.91**	**< .001 ****
Cardiovascular diseases	**1.41**	**1.09**	**1.84**	**0.010 ****
Acute coronary syndrome	0.41	0.05	3.17	0.391
Coronary artery disease	1.65	0.97	2.81	0.066
Arrhythmia	1.92	1.14	3.22	0.014 *
Congestive heart failure	2.25	0.83	6.09	0.110
Hypertensive heart disease	0.94	0.64	1.37	0.728
Others	2.61	1.13	6.03	0.025 *
Stroke events	**1.76**	**1.28**	2.41	**0.001 ****
Hemorrhagic stroke	2.09	1.35	3.24	0.001 **
Ischaemic stroke	1.32	0.82	2.12	0.262
Subarachnoid stroke	1.71	0.79	3.71	0.177



*p<0.05, ** p<0.01

原則二：篩檢、評估、診斷、治療計畫-3
Principle 2: Screening, Assessment, Diagnosis and Treatment Planning-3

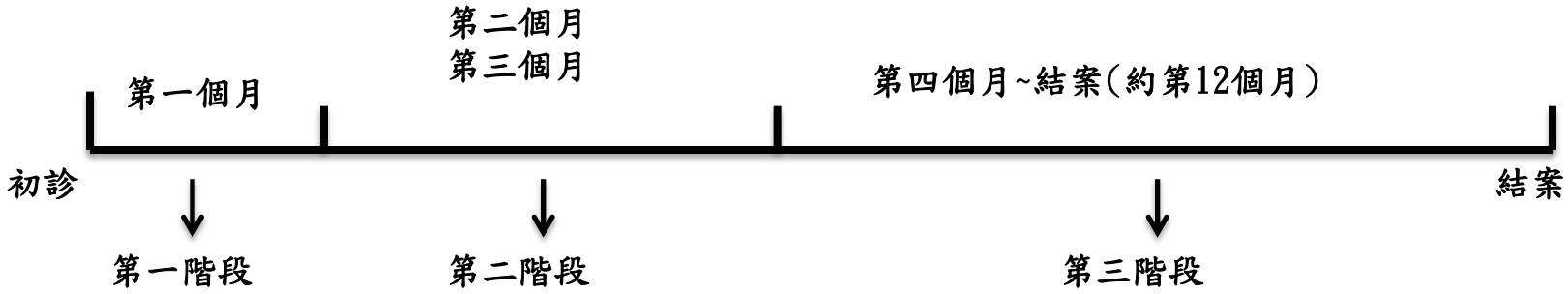
- **The treatment plan:** 建議提供一個治療計畫的紙本摘要，包括療程內容。治療本身需要隨個案狀況而改變

- **The treatment plan:** A care or treatment plan is a written description of the treatment to be provided and its anticipated course. The plan is then monitored and revised periodically as required to respond to the patient's changing situation.

The treatment plan

- 利用手冊與個案共同在復原之路上努力

北檢轉介二級毒品緩起訴門診追蹤流程
(The protocol of medical visits for those who receive deferred prosecution as a conditional treatment



- Stage I(第一階)：每週回診一次，共四次 (weekly, 4 visits)
- Stage II (第二階)：每兩週回診一次，共四次 (biweekly, 4 visits)
- Stage III (第三階)：每四週回診一次，直至結案 (q4w, until end)

Each visit: Medical assessment and treatment and urine toxicology

原則三、Evidence-informed藥癮治療-1
Principle 3: Evidence-informed Drug Dependence Treatment-1

- A range of evidence-based pharmacological and psychosocial interventions: No single treatment for all patients
- Sufficient duration
- The integration of psychosocial and pharmacological treatment methods, rather than the addiction only
- Multidisciplinary: 多職類/專業/跨科別
- Brief Intervention: an effective and economical prevention option

Coles, 2018, Am J Addictions

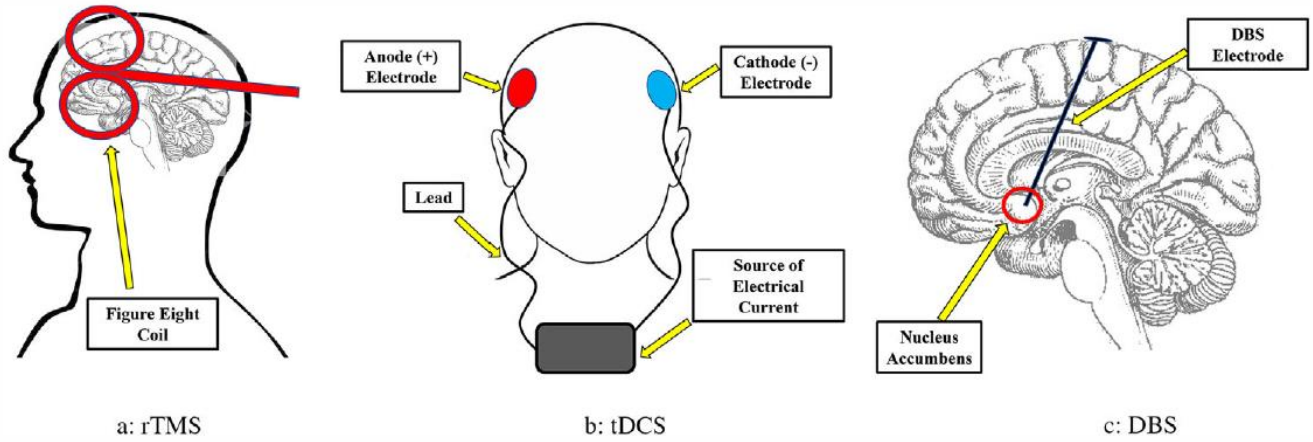


FIGURE 1. Diagrams to illustrate the three brain stimulation techniques: (a) rTMS, (b) tDCS, and (c) DBS.

72 Brain Stimulation to Treat SUDs March 2018

Brain Stimulation

- rTMS: repetitive Transcranial Magnetic Stimulation
- tDCS: transcranial Direct Current Stimulation
- DBS: Deep Brain Stimulation

短期r-TMS 或tDCS (2-5 sessions)可以顯著降低craving或consumption

原則三、Evidence-informed藥癮治療-2
Principle 3: Evidence-informed Drug Dependence Treatment-2

- A range of evidence-based pharmacological and psychosocial interventions: No single treatment for all patients
- Sufficient duration
- The integration of psychosocial and pharmacological treatment methods, rather than the addiction only
- Multidisciplinary: 多職類/專業/跨科別
- Brief Intervention: an effective and economical prevention option

什麼是足夠的治療時間 (What is sufficient duration) ?

- 大約有 10% 的成癮者表示他們曾經有過酒藥癮問題，但現在並無 (90% substance abusers have active problems of addiction at present)。 (Worley et al., 2016)
- 83% substance abusers experience the cycle of relapse→ abstinence→ sobriety (Scott et al., 2005)
- 50-60% relapse within 6 months.
  - intervention should last for 6-12 months.

(Hunt et al., 1971; Hubbard et al., 1989; Finney et al., 1996; Simpson et al., 1997; Anglin et al., 1997; McKay et al., 1999, 2004)

Recovery

ELSEVIER

Journal of Substance Abuse Treatment 33 (2007) 221–228

Journal of Substance Abuse Treatment

Special Section: Defining and Measuring "Recovery"
Special article

What is recovery? A working definition from the Betty Ford Institute

The Betty Ford Institute Consensus Panel☆

Received 16 February 2007; received in revised form 4 June 2007

- WHO's definition of health: complete physical, mental, and social well-being, not merely the absence of disease"
  - 自主維持Sobriety, personal health, citizenship的一個生活型態。(Betty Ford Institute)
  - improved health, wellness and quality of life" (Center for Substance Abuse Treatment, 2007).

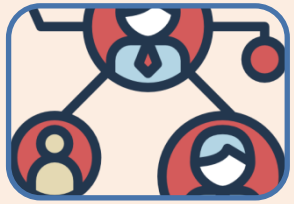
●持續治療追蹤五年以上，可以帶來較好的預後 (5 years of treatment is associated with better outcomes)

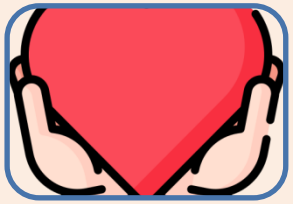
原則三、Evidence-informed藥癮治療-3
PRINCIPLE 3: Evidence-informed Drug Dependence Treatment-3

- A range of evidence-based pharmacological and psychosocial interventions: No single treatment for all patients
- Sufficient duration
- The integration of psychosocial and pharmacological treatment methods, rather than the addiction only
- Multidisciplinary: 多職類/專業/跨科別
- Brief Intervention: an effective and economical prevention option

Individualized treatment

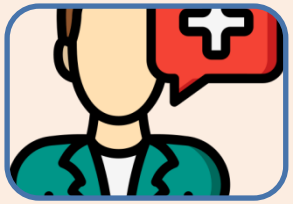
- 服務項目(多職類/專業/跨科別)

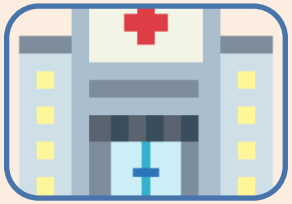

個案管理


心理治療


職能治療


社工介入


醫療門診


合作機構轉銜

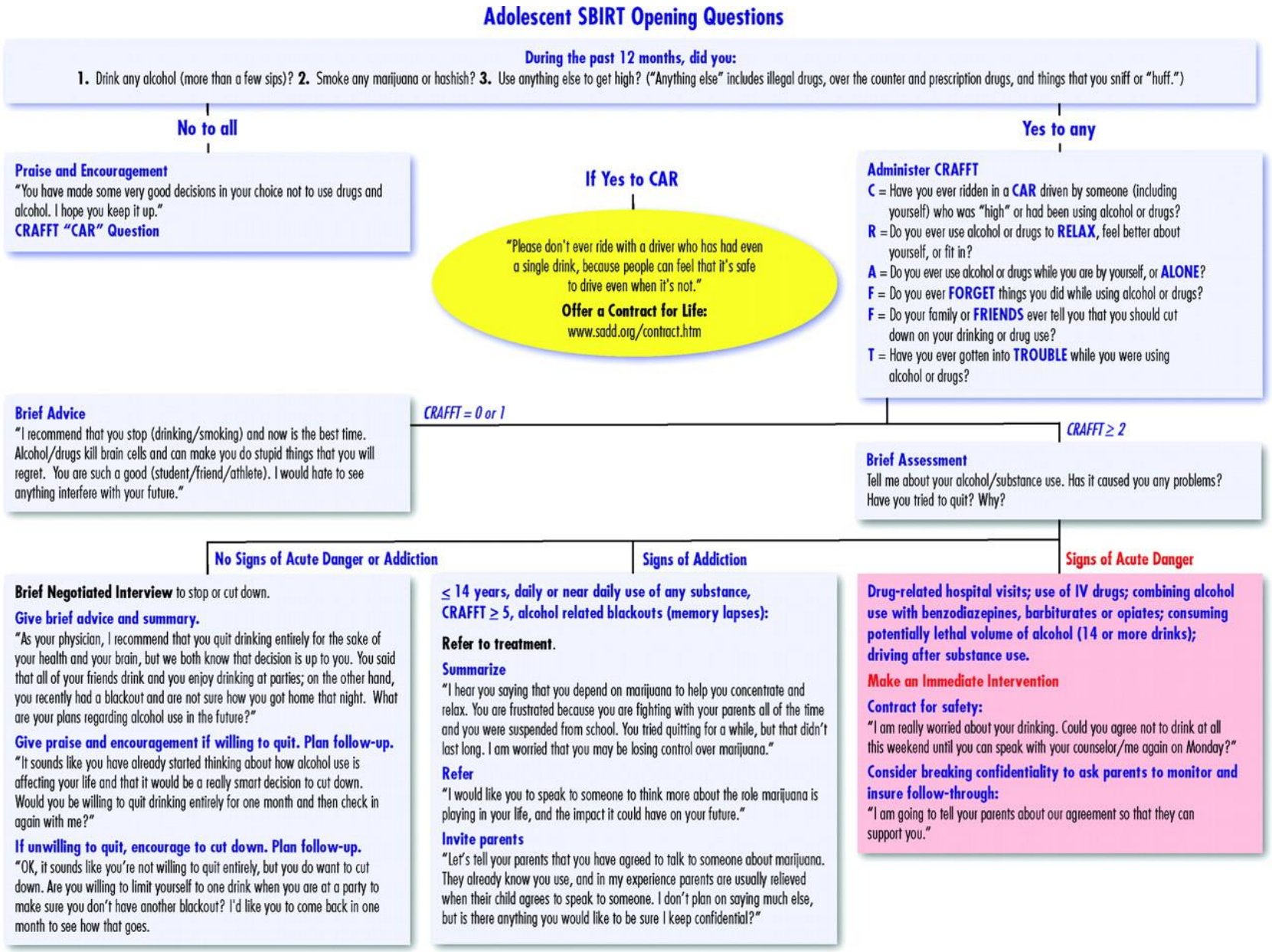
- 象山學園治療內容

	一	二	三	四	五
09:00 12:00	●藥癮特別門診 ●個管師評估時間 ●個別藥物諮詢				
10:00 11:30	正念情緒調適團體	生活重建團體	認知心理治療團體	就業準備團體	藥物衛教團體
13:30 16:30	●個別心理治療 ●個別職能治療與評估				

Brief Intervention

- 利用手冊與個案共同在復原之路上努力

https://pediatrics.aappublications.org/content/128/5/e1330/tab-figures-data



Brief Intervention

CRAFFT =0 or 1

簡短建議

"現在是你停止使用的最佳時機，酒精/藥物會破壞大腦細胞，進而干擾你的生活。你這麼優秀，我不希望它們影響你的未來。"

CRAFFT ≥ 2

簡短評估

可與我分享有關你喝酒或用藥的經驗。有因此而發生問題嗎？你曾經想停止使用嗎？為什麼呢？

無立即危險或成癮

◎簡短訪談◎

給予建議與統整

"身為你的醫生，為了你的健康，我強烈建議你滴酒不沾，但這需自己下定決心。在聚會和朋友中盡興飲酒，但卻無法記得自己如何回到家。對此你有任何戒酒想法嗎？"

鼓勵戒除並追蹤

"聽起來你願意開始思考酒精對生活的影響，這會是戒除的好機會。你願意嘗試停止喝酒一個月並回來看我嗎？"

鼓勵減量並追蹤

"聽起來滴酒不沾目前不易做到，不妨試試在聚會當中不喝超過一個標準單位酒精，如此可確保不再發生酒後失憶。希望你一個月後回來與我分享？"

有成癮跡象

≤ 14歲，幾乎或每天使用，CRAFFT ≥ 5 且有酒精性失憶

◎轉介治療◎

統整

"因為和家人的爭執與學業中斷讓你感到挫折，你藉由使用大麻讓自己集中精神和放鬆。你嘗試停用一陣子但無法持久，我擔心你對大麻會失去控制感。"

諮詢

"我建議你可以諮詢相關單位討論有關大麻對你目前及未來生活的影響。"

邀請雙親

"讓我們告訴父母你願意跟人討論使用大麻事情，雖然他們已知情，但就我經驗這麼做會讓他們更安心。對於其他事項我不會多說明，或者有什麼事是你希望我保密的呢？"

有立即危險跡象

藥物相關就醫紀錄；使用靜脈注射藥物；酒精與特定藥物共用(苯二氮類、巴比妥類和鴉片類)；飲酒量超過14標準單位酒精；物質使用後駕駛

◎立即介入◎

安全性約定

"我真的很擔心你的飲酒/用藥狀況，你可以答應我下周回診前試著做到停酒/停藥嗎？"

建立家庭支持網

"我將會告訴你的父母我們間的約定，這樣他們也可以一起幫助你。"

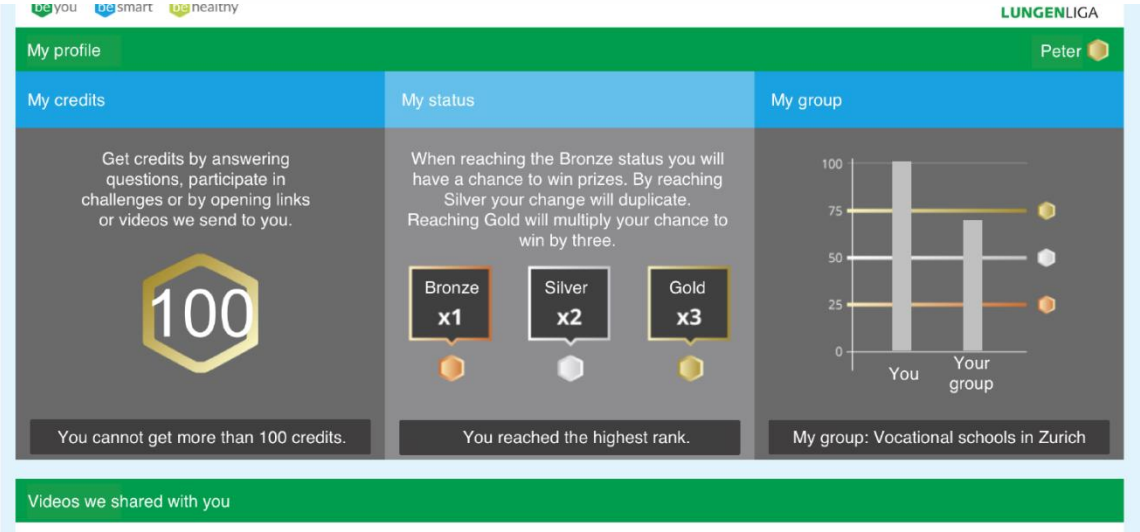
原則三、Evidence-informed藥癮治療-4
Principle 3: Evidence-informed Drug Dependence Treatment-4

- Outreach and low-threshold: 對不太願意參與正規治療的個案有助益
- Basic services: 解毒、藥物、諮商、復健、社會支持
- Medically-supervised withdrawal: 銜接長期drug-free program
- Maintenance medications: methadone and buprenorpine

- Outreach and low-threshold: can reach patients not motivated to engage in structured forms of treatment.
- Basic services: detoxification, psychosocially assisted opioid agonist pharmacotherapy of opioid dependence, counseling, rehabilitation strategies and social support.
- Medically-supervised withdrawal: preparatory step to start long lasting drug-free program
- Maintenance medications: methadone and buprenorpine

Outreach and low-threshold

A Mobile Phone-Based Life Skills Training Program for Substance Use Prevention Among Adolescents: Pre-Post Study on the Acceptance and Potential Effectiveness of the Program, Ready4life



STUDY PROTOCOL Open Access

Using smartphones to decrease substance use via self-monitoring and recovery support: study protocol for a randomized control trial

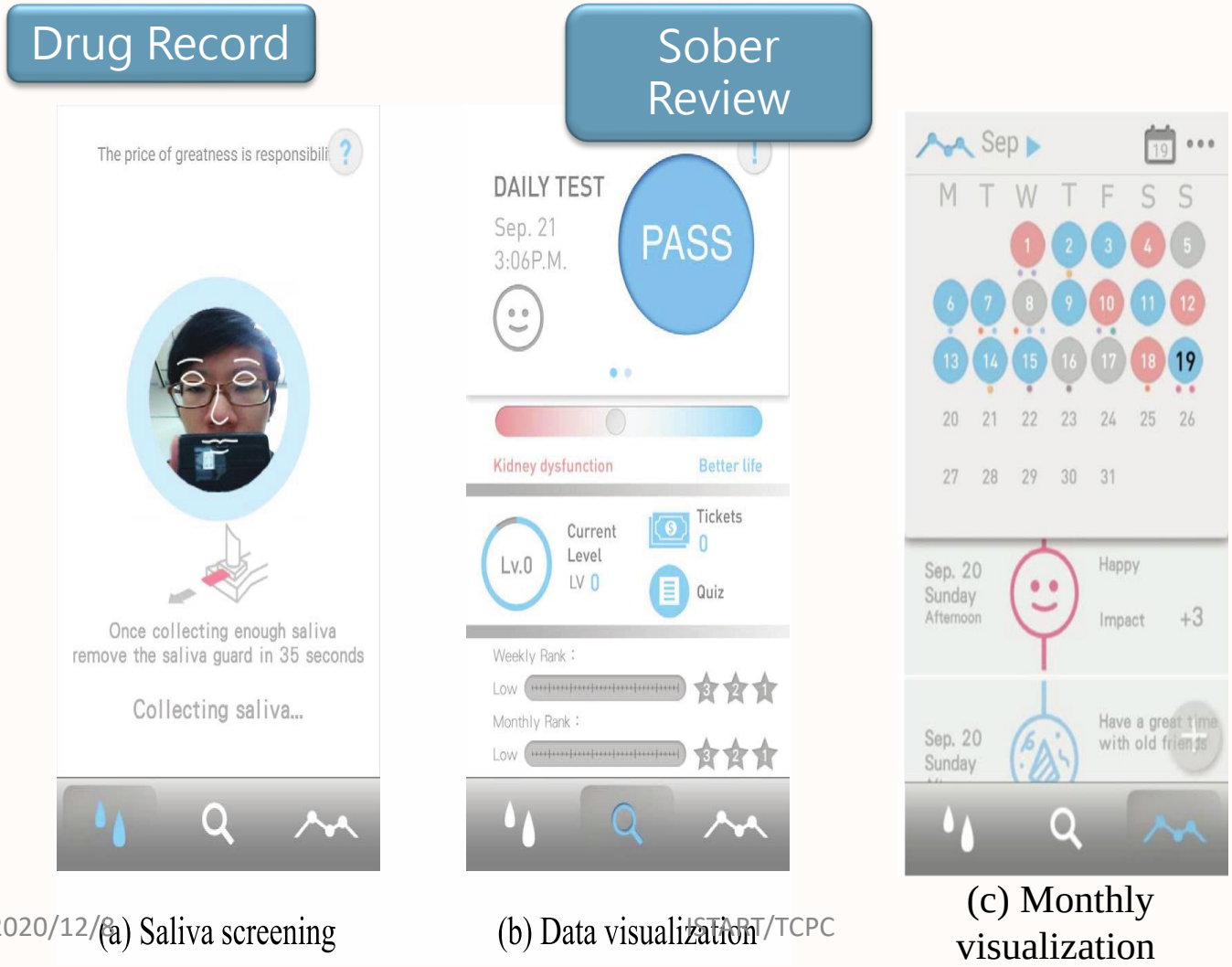
Christy K Scott[1*], Michael L. Dennis[2] and David H. Gustafson[3]

Saliva-screening device

- Portable
- Accuracy: 93%

You, Chuang-Wen, et al. "KeDiary: Using Mobile Phones to Assist Patients in Recovering from Drug Addiction." CHI 2016.

The KeDiary Application



(a) Saliva screening (b) Data visualization (c) Monthly visualization

原則三、Evidence-informed藥癮治療-5
Principle 3: Evidence-informed Drug Dependence Treatment-5

- Psychological and social interventions: CBT, MI, CM, OT, **MATIRX**
- Self-help support group
- Socio-cultural relevance:
- Knowledge transfer and ongoing clinical research: permanently improve the treatment programs
- Training

Knowledge transfer and ongoing clinical research

Table 1 Baseline demographic characteristics, psychological symptoms, and METH use variables in study participants stratified by relapse of METH use during the one-year follow-up

	Overall (N=449)	Relapse group (N=170)	Non-relapse group (N=279)	*p*
Demographic characteristics				
Age, y/o, mean (SD)	35.3 (9.3)	35.3 (9.8)	35.3 (9.0)	0.999
≤ Median age (35 y/o), n (%)	240 (53.45)	90 (52.9)	150 (53.8)	0.866
Males, n (%)	424 (94.4)	162 (95.3)	262 (93.9)	0.534
Married, n (%)	58 (13.2)	22 (13)	36 (13.2)	0.680
Education, years ≤ 12, n (%)	207 (46.9)	92 (55.1)	115 (42)	**0.007**
Employed, n (%)	400 (95.0)	152 (96.2)	248 (94.3)	0.384
History of other criminal records, n (%)	90 (20.3)	40 (24)	50 (18.1)	0.139
Psychological symptoms				
BDI scores, Mean (SD)	11.1 (10.4)	13.5 (12.2)	9.7 (8.9)	**<0.001**
≥ 20 (Moderate/Severe depression), n (%)	87 (19.4)	45 (26.5)	42 (15.1)	**0.003**
BAI scores, Mean (SD)	6.1 (8.2)	7.4 (9.2)	5.3 (7.4)	**0.011**
≥ 16 (Moderate/Severe Anxiety), n (%)	48 (10.7)	27 (16.2)	21 (7.6)	**0.005**
SWLS scores, Mean (SD)	20.9 (7.4)	19.9 (7.4)	21.5 (7.3)	**0.027**
METH use-related variables				
Age of first METH use, y/o, mean (SD)	29.9 (10.3)	28.1 (9.9)	31 (10.4)	**0.004**
Duration of METH use, months, mean (SD)	61.7 (96.1)	79.1 (116)	51 (80.1)	**0.006**
Comorbid with other substance use disorder, n (%)	101 (22.5)	48 (28.2)	53 (19)	**0.023**
SDS (score), Mean (SD)	4 (2.5)	4.2 (2.6)	3.9 (2.5)	0.181
≥ 4 score	241 (53.7)	97 (57.1)	141 (51.6)	0.261
VAS for craving, Mean (SD)	1.4 (1.9)	2 (2.2)	1 (1.7)	**<0.001**
Baseline urine positive for METH, n (%)	74 (16.5)	55 (32.4)	19 (6.8)	**<0.001**
Time to first relapse (day), mean (SD)	217.5 (148.0)	66.8 (84.5)	309 (92.8)	**<0.001**

Abbreviations: BDI: Beck Depression Inventory; BAI: Beck anxiety inventory; METH: methamphetamine; SDS: Severity of Dependence Scale; SWLS: Satisfaction with Life Scale

甲基安非他命緩起訴個案

37.9%: 任一驗尿陽性
63.1%: 維持drug-free

94.4%: 男性
平均年齡35.3歲
13.2%已婚
46.9%: 高中或以下學歷
95%: 在職(全職或兼職)

將近兩成有中度至重度憂鬱問題
一半以上可能成癮

在未來一年有任一陽性：
初次驗尿32.4%即陽性(vs 6.8%)

Table 2 Univariate and multivariate Cox regression model to examine the associative factors with relapse of METH use in the one-year follow-up (N=449)

	Univariate model HR (95 % CI)	*p*	Multivariate model HR (95 % CI)	*p*
Demographic factors				
Age ≤ the median age 35 (vs. > 35)	1.03 (0.76-1.4)	0.833	0.93 (0.6-1.45)	0.764
Males (vs. females)	1.21 (0.6-2.46)	0.597	1.42 (0.57-3.55)	0.451
Marital status (vs. married)				
Unmarried	1.00 (0.63-1.57)	0.994	0.81 (0.41-1.58)	0.533
Others	1.27 (0.7-2.29)	0.432	1.13 (0.66-1.91)	0.660
Educational years less ≤ 12 (vs. > 12)	1.61 (1.18-2.18)	**0.002**	1.23 (0.84-1.82)	0.286
Employed (ref: unemployed)	0.66 (0.29-1.49)	0.316	0.64 (0.27-1.51)	0.313
History of other criminal records (vs. no history)	1.28 (0.9-1.83)	0.172	1.15 (0.73-1.80)	0.543
Psychological symptoms factors				
Moderate-to-severe anxiety (BDI scores ≥ 20 (vs. < 20)	1.82 (1.3-2.57)	**0.001**	1.36 (0.84-2.19)	0.210
Moderate-to-severe anxiety (BAI scores ≥ 16 (vs. < 16)	1.86 (1.23-2.8)	**0.003**	0.95 (0.54-1.69)	0.860
SWLS scores	0.97 (0.96-0.99)	**0.012**	1.00 (0.97-1.02)	0.732
Substance use-related factors				
Age of first METH use	0.98 (0.96-0.99)	**0.004**	1.00 (0.97-1.02)	0.700
Duration of METH use	1.002 (1.001-1.003)	**0.003**	1.002 (0.999-1.004)	0.134
Comorbid with other substance use disorder	1.45 (1.04-2.03)	**0.029**	1.12 (0.74-1.68)	0.597
SDS score ≥ 4 (vs. 4)	1.18 (0.87-1.6)	0.279	0.85 (0.6-1.22)	0.381
VAS for craving	1.19 (1.12-1.27)	**<0.001**	1.14 (1.06-1.24)	**0.001**
Baseline urine positive for METH (vs. urine negative)	4.17 (3-5.79)	**<0.001**	3.85 (2.61-5.68)	**<0.001**

Abbreviations: BDI: Beck Depression Inventory; BAI: Beck anxiety inventory; METH: methamphetamine; SDS: Severity of Dependence Scale; SWLS: Satisfaction with Life Scale

未來一年會復發使用甲基安非他命者: 高渴求性，初次驗尿即陽性

調整治療追蹤頻次？

Training program for therapists

團

專業人員
藥癮團體督導

108年4月至今，由羅時揚或李昭慧臨床心理師**每月一次團體督導**

李詠悅專科護理師定期團體督導

已進行12、6場次

教

晨間會議
每週一、三、五

進行特殊個案討論及不同主題之讀書會

藥

藥癮專業人員
繼續教育訓練

－藥癮治療與實務技巧（主講者：李昭慧臨床心理師）
－辯證行為治療系列工作坊（馬偕團隊）
－與合作機構合辦之演講座

已進行16場次

講

講師
藥癮專業人員繼續教育訓練課程

108年09月25日：108年度第3次藥癮專業人員8小時訓練由本中心陳姝卉、辜浩源臨床心理師擔任講師

109年度專業人員教育訓練之規劃

原則四、藥癮治療、人權、尊嚴-1

Principle 4: Drug Dependence Treatment, Human Rights, and Patient Dignity-1

- 沒有歧視: 不論是藥癮治療或其型式之治療
- 尊重自主與自決，治療人員也具義務beneficence and non-maleficence
- 治療或照護的可近性: 不論是任何階段、有沒有動機、是否復發、或在獄中

- No discrimination : should apply to the treatment of drug dependence as other health care conditions.
- Right to autonomy and self determination: obligation for beneficence and non-maleficence on behalf of treating staff.
- Access to treatment and care: in all the stages of the disease, also for the patients not motivated or relapsing after treatment, as well as during detention periods in prison.

原則四、藥癮治療、人權、尊嚴-2

Principle 4: Drug Dependence Treatment, Human Rights, and Patient Dignity-2

- 強制治療只發生在危機之時，時間長短應有法規依據。
- 施用與持有者，應考慮將治療作為監禁或罰緩的替代，雖然此仍帶有強制意味。個案可以拒絕治療，而選擇監禁與罰緩。
- 人權與隱私權: 治療的提供並不完全賴於良好的配合度。

- Compulsory treatment should be mandated only in exceptional crisis situations, and periods of time as specified by the law.
- When the use and possession of drugs results in state imposed penal sanctions, the offer of treatment as an alternative to imprisonment or other penal sanction presents a choice to the patient/offender, and although it entails a degree of coercion to treatment, the patient is entitled to reject treatment and choose the penal sanction instead.
- The human rights and the privacy: the provision of medical treatment services is not dependent on compliance with addiction treatment

原則五、特殊族群-1

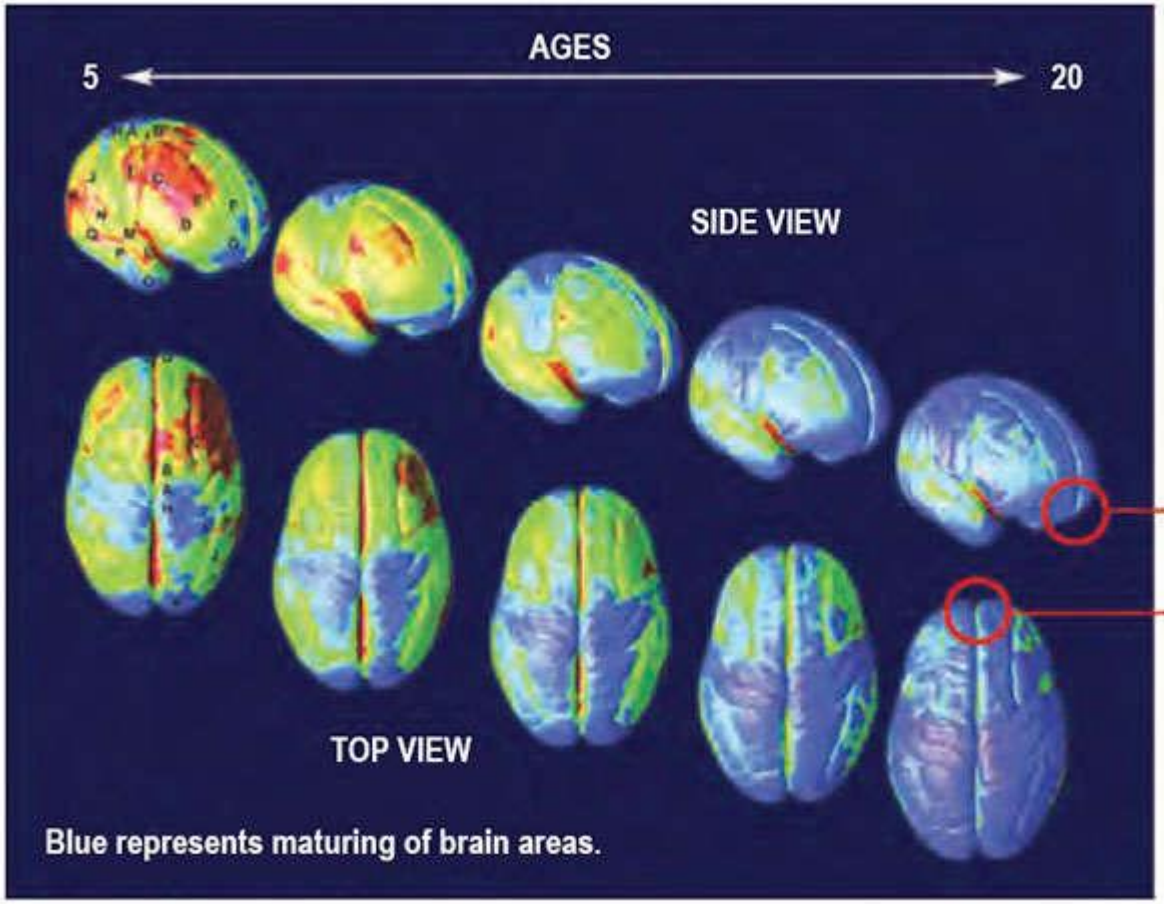
PRINCIPLE 5: Targeting Special Subgroups and Conditions-1

- 青少年：初期問題的個案若有機會接觸其他成癮性較為嚴重的個案可能會有不良後果。需要與家庭與學校合作；但和父母可考慮分開處理。
- 女性：更容易被汙名化。
- 懷孕女性：prenatal and breastfeeding
- 身體共病：HBV, HCV, HIV, TB, and cirrhosis

- Adolescents：It may be counterproductive for young patients in early stages of drug use disorders to get in contact with people in more advanced stages of the disease through the treatment setting, and therefore, separate settings for adolescents and their parents can be considered. It will benefit from close cooperation with families and when appropriate, schools.
- Women：are heavily stigmatized,
- Pregnant women：prenatal and breastfeeding
- Medical co-morbidities：HBV, HCV, HIV, TB, and cirrhosis

青少年的腦部發展

- **油門(reward system)有勁，但煞車(prefrontal cortex)的一部車**



- 大腦發育會持續至成年早期
- Prefrontal cortex: 判斷力、自控力，是最後成熟的區域.

4-21 y/o, n = 13, q2y f/u

Gogtay et al., PNAS 2004

Outreach to detention center for adolescents

少觀所：篩檢、簡短介入及轉介治療

成癮概念
團體**衛教**

每月一次
每次兩場

簡介成癮概念：
成癮是大腦功能失調

入所少年藥物濫用風險**篩檢**及**簡短介入**

以CRAFFT量表作為篩檢工具

高風險個案予
簡短介入

出所**後追**
團體合作

社團法人中華民國更生少年關懷協會合作

提供**該機構內社區處遇少年**中具藥物濫用問題個案的**轉介服務**

統整分析

統整衛教回饋及篩檢結果，**分析**入所少年成癮問題現況

原則五、特殊族群-2

PRINCIPLE 5: Targeting Special Subgroups and Conditions-2

- 精神病共病：人格疾患、情緒疾患、精神病。
- 性工作者：為了取得藥物，感染風險、被暴力傷害、受社會排擠.
- 少數種族：語言、文化、宗教
- 邊緣/街友：無家可歸或被家人拒絕。和社福的合作。

- psychiatric co-morbidities : personality, affective and other psychiatric disorders
- Sex-workers : as a means to afford buying drugs ,risk of infections, victimization, violence, social exclusion.
- Ethnic minorities : language, cultural, religious differences
- Marginalized/street people : homeless or rejected by their families. social services in parallel with treatment services

Principle 6：Addiction treatment and criminal justice system-1

"一般而言，藥癮應該被視為一個健康照護的議題，並且藥癮者在可能的狀況下，應該在健康照護體系中處理，而不是犯罪"; "應提供治療作為入監的alternative"

研究顯示藥癮治療對於降低相關犯罪顯著有效"即使入監，也該在獄中啟動治療，並出獄後持續re-integration計畫"

- 司法→治療之轉介機制

"In general, drug use should be seen as a health care condition and drug users should be treated in the health care system rather than in the criminal justice system where possible." "Interventions for drug dependent people in the criminal justice system should address treatment as an alternative to incarceration "

"Research results indicate that drug dependence treatment is highly effective in reducing crime. Treatment and care as alternative to imprisonment or commenced in prison followed by support and social reintegration after release. "

- Diversion schemes from criminal justice system into treatment.

Principle 6：Addiction treatment and criminal justice system-2

- 人權原則：在獄中也需接受照護(身體與心理)，並符合good clinical practice
- 出獄後在社區照護介入方案的延續性
- 不論是監禁或勞動服務在科學上不被認為是有效的治療

- Human rights principles： Drug dependent people in prison have the right to receive the health care and treatment(pharmacological and psychosocial), which should be initiated following good clinical practice
- Continuous care in the community： upon release is crucial to meaningfully reintegrate drug dependent offenders into the community.
- Neither detention nor forced labor have been recognized by science as treatment for drug use disorders

Principle 7：Community involvement, participation, and patient orientation-1

一個在服務提供上的合作型式，包括官方、非官方組織、社區領導者、宗教團體、以及家庭單位。

- 個案的積極參與：為自己的改變(康復)負起責任。
- Community-oriented interventions: 以支持的態度去型塑公眾意見與健康政策，以避免汙名化或社會邊緣化。去汙名化會改善個案治療的動機。

a more cooperative form of service delivery, for which the active involvement of governmental and nongovernmental organizations, community leaders, religious organizations, and families

- Patient active involvement ：promote ownership and responsibility for change (recovery).
- Community-oriented interventions: promote supportive public opinions and health policy, reduce discrimination and social marginalization. De-stigmatization of affected individuals is substantial to improve accessibility to treatment.

個案的積極參與：為自己的改變(康復)負起責任。

- 找尋相關線索(高危險情境)-全力避免
- 強化拒絕技巧
- 規律生活作息
- 培養健康的休閒娛樂
- 提供知識和求援管道
- 情緒的覺察與管理
- 渴癮(craving)的處理

Principle 7: Community involvement, participation, and patient orientation-2

- Mainstreaming：將藥癮治療推展為主流治療，令更多個案願意治療，也讓社會大眾了解其必要性。
- Linkages: 將藥癮治療和醫院服務(急診、內外科、精神科)、社會服務、職業訓練結合。
- NGOs: 在提供治療與復健/重建(reintegration)有重要角色。

- Mainstreaming：enables the treatment of a larger number of patients，
- Linkages: between drug dependence treatment services and hospital services(emergency rooms, infectious diseases and internal medicine departments), specialized social services, vocational training and employment.
- NGOs: can be particularly helpful in the process of scaling up treatment and facilitation of rehabilitation and reintegration.

原則八、藥癮治療：臨床服務面向-1
Principle 8: Clinical Governance of Drug Dependence Treatment Services-1

- 服務方針與流程：反映治療哲學、目的、方向、療法、對象、以及方法。
- 治療療程說明：評估、照護計畫、與提供。
- 治療人員需經足夠的訓練：提供進階的訓練以維持高水準醫療。

- Service policy and protocols : clarify the treatment programme's philosophy, aims and objectives, strategic management, therapeutic approach, target population and programmes and procedures.
- Treatment protocols : including details concerning procedures for assessment, care planning and provision of treatment.
- Qualified staff: appropriate continuing education are needed for the delivery of high quality services.

二級毒品緩起訴個案治療之哲學
(The treatment program's philosophy)

- 只有極少數的個案在治療初期就會呈現效果 (Arria et al, Sbust Use Misuse, 2012)(Only very few patients have favorable treatment effect in the initial phase of treatment)

- 治療應有階段， 明確區別為急性期、中期、與持續期(ML, Health Policy; 2008Arria et al, Sbust Use Misuse, 2012)(Staging for treatment is important and should be clearly distinguished based on acute, stabilization, and maintenance phases)

- 監測應為臨床介入的一環，作為檢視進步或成效的標準(Dennis & Scott, Addiction Sci Clin Pract, 2007)(Monitoring should be integrated into the treatment for progress or effect examination)

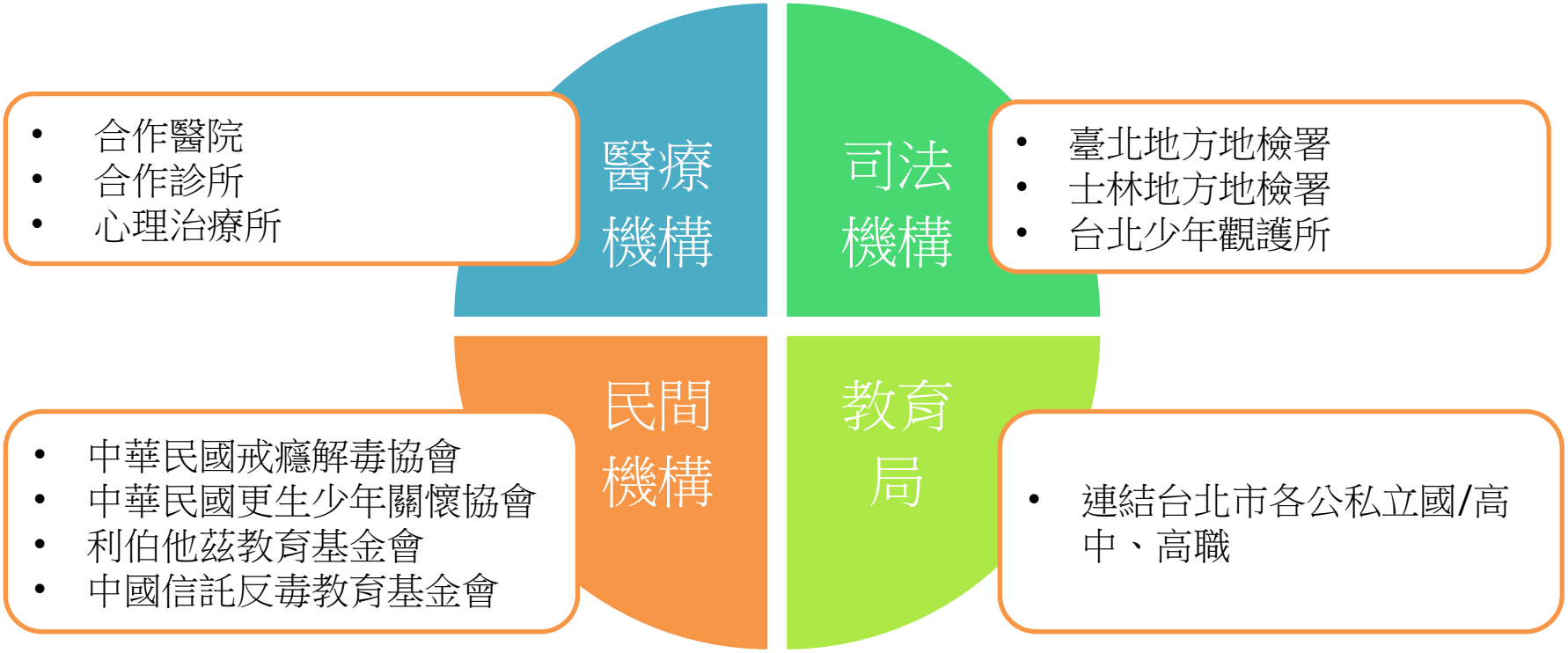
- 不能只有討論毒品使用問題，而是由人生影響之角度(Life perspective, not limiting to drug use problem, should be prioritized in the management)

原則八、藥癮治療：臨床服務面向-2
Principle 8: Clinical Governance of Drug Dependence Treatment Services-2

- 監督/評鑑: 避免工作人員過勞、設定合理的教育/學分標準、大學/研究所/學後的學程，結合電子資源以促進專業性的持續。
- 預算的延續(不中斷)：專業的培植與訓練應含在其中。
- 各治療專業的合作：基層診所、內外科、精神科、社福體系

- Supervision : prevent burnout among staff members, standardize and certify the qualifications , undergraduate/ graduate/ postgraduate programs teaching courses with e-learning modules can enhance further training for treatment professionals
- Financial resources(Sustainable)： costs for staff education and for evaluation should be included.
- Communication structures and networking ： general practitioners, specialists (e.g. psychiatrists, infection specialists, etc.) and social services

各治療專業的合作


醫療機構
司法機構
民間機構
教育局
合作醫院
合作診所
心理治療所
臺北地方地檢署
士林地方地檢署
台北少年觀護所
中華民國戒癮解毒協會
中華民國更生少年關懷協會
利伯他茲教育基金會
中國信託反毒教育基金會
連結台北市各公私立國/高中、高職

原則八、藥癮治療：臨床服務面向-3
Principle 8: Clinical Governance of Drug Dependence Treatment Services-3

- 評估機制：除了個案追蹤資料之外，也需收集個案的迴饋(保密性)，探討服務品質的因子，
- 更新服務內容：以隨時因應時代變化、科學發展，並且將個案的迴饋考慮在內而修正服務內容。

- Monitoring systems ：除了個案追蹤資料之外， provide evaluation and feedback(confidentiality) on service and system performance for quality assurance
- Updating services ：以隨時因應時代變化、科學發展，Services will also need to build on feed-back from patients, as well on as monitoring and evaluation results with a view to improving their quality and performance

原則九、治療系統：策略發展與服務整合-1

Principle 9: Treatment Systems: Policy Development, Strategic Planning and Coordination of Services-1

- 建立一個treatment policy：由政府相關單位製定基本方針，evidence-based, cost-effectiveness, 整合多專業，衛政、社福、民政、勞工/職業、司法。
- 預防策略結合：特別是高風險族群，連結預防與治療。
- 情境評估：了解什麼個案會尋求治療、藥物使用之型態、在治療中如何改變、不同治療型態對不同個案之適用性。

- Formulation of a treatment policy：by relevant authorities in governments. evidence-based, cost-effective, multisectoral, including health, welfare, labour, criminal justice, and civil society
- Link to prevention：especially in high-risk group. Linkages between prevention interventions and treatment services
- Situation assessment：understanding the types of people who may seek help, patterns of drug use and how they change over time in any one population, and the preferences for different types of treatment

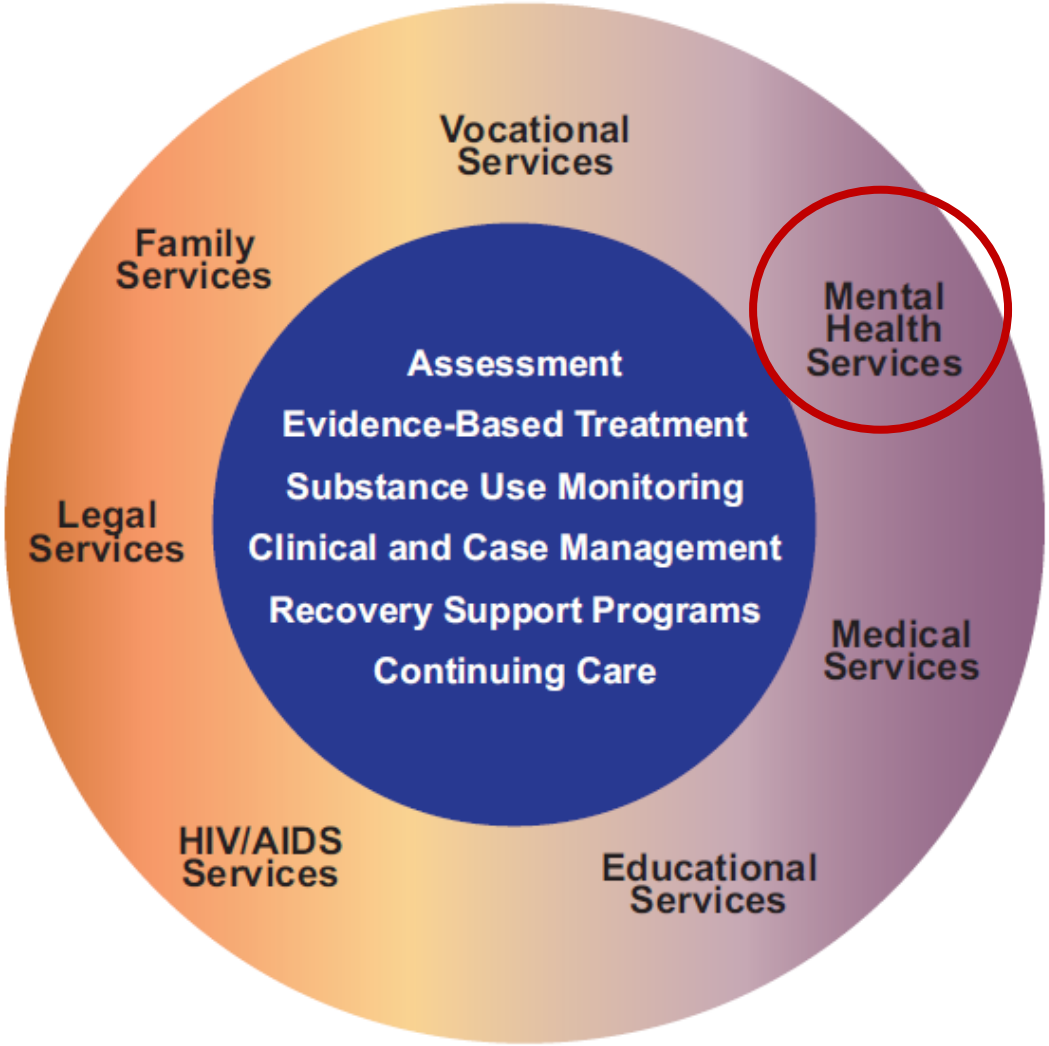
原則九、治療系統： 策略發展與服務整合-2

Principle 9: Treatment Systems: Policy Development, Strategic Planning and Coordination of Services-2

- 協調與平衡各系統投入資源。
- 照護之持續性
- 多專業取向
- 建立足夠的治療人力
- 品質確認、監測與評估：不只正效應，也要評估負效應。

- Coordination between different sectors and appropriate balance between specialised services and primary care
- Continuum of care.
- Mulltidisciplinary approach
- Capacity building.
- Quality assurance, monitoring and evaluation

Components of Comprehensive Drug Abuse Treatment



心理衛生
醫療服務
教育
HIV/AIDS服務
法律面向
家庭介入
職業功能

The best treatment programs provide a combination of therapies and other services to meet the needs of the individual patient.

Slaying the Dragon

一棒接一棒傳承，一點又一滴努力

整合性藥癮醫療示範中心
Institute of Substance Treatment And Research in Taipei (ISTART)

特別感謝
衛生福利部心口司

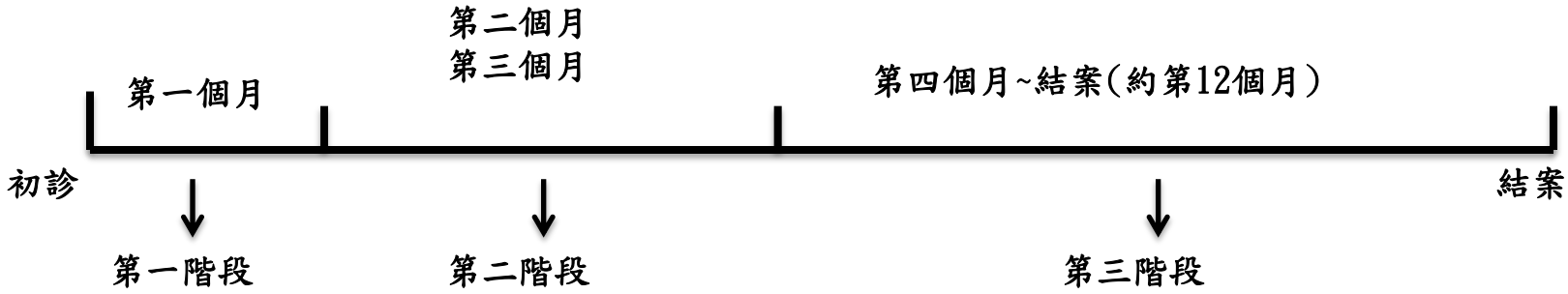
成癮治療的困境 (The dilemma of addiction treatment)

- 個案動機不足
  - 大於70%以上不覺得自己有成癮問題或需要改變
  - 只有小於7%的成癮個案會尋求治療 (Hason, et al., 2007)
- 缺乏成癮的疾病概念
- 涉及不同法律議題：家庭暴力、性侵害、酒駕、公共安全，醫療的限度易被混淆。
- 錯誤認知：復發= 治療/介入失敗
- Medical model被窄化成藥物模式
- 長期成癮治療機構的不足
  - 中途之家或復健治療機構

二級毒品緩起訴個案治療

- 只有極少數的個案在治療初期就會呈現效果 (Arria et al, Sbust Use Misuse, 2012)
- 治療應有階段， 明確區別為急性期、中期、與持續期 (ML, Health Policy; 2008Arria et al, Sbust Use Misuse, 2012)
- 監測應為臨床介入的一環，作為檢視進步或成效的標準 (Dennis & Scott, Addiction Sci Clin Pract, 2007)
- 不能只有討論毒品使用問題，而是由人生影響之角度

北檢轉介二級毒品緩起訴門診追蹤流程



- 第一階：每週回診一次，共四次
- 第二階：每兩週回診一次，共四次
- 第三階：每四週回診一次，直至結案

資料來源：陳亮妤醫師

Variable	N=1227 Mean	SD
Age of the first clinic visit	32.9	9.1
Sex	N	%
Male	1,073	87.3
Female	155	12.7
Education level		
Graduate school	62	5
College	439	35.7
Senior high school	486	39.6
Junior high school	202	16.5
Elementary school	24	2
Unspecified	14	1.1
Marry status		
Unmarried	917	74.7
Occupation		
Professionals/Business owners	264	21.5
Administration/ Staff/Clerk	499	40.7
Technician	302	24.6
Others	78	6.4
Unemployment	84	6.8

- 低求助率
  - 只有7%的藥癮個案會主動尋求協助 (Caldeira et al., J Sub Abuse Treat, 2009)
- 高復發率
  - 約有60%的個案在介入後的6個月內會復發使用 (Hunt et al., 1971; Hubbard et al., 1989; Finney et al., 1996; Simpson et al., 1997; Anglin et al., 1997; McKay et al., 1999, 2004)

司法後盾之重要性

復發之意義：

神經生理病變

調整介入策略

反社會人格

- 大約40%到50% 的藥癮個案具有反社會人格 (Messina, Wish, & Nemes, 1999; Haase, 2009).
  - 許多治療的研究多半會去除反社會人格的參與者
  - 根據美國國家衛生研究院藥物濫用研究所，藥癮者合併反社會人格者，最佳的處遇/介入是由"a court of law"來指揮
  - 醫療之最大限制
  - 分流之重要性：初期辨識不易，有賴時間之觀察，更賴處理之彈性與立即性

分階制度

- 治療期間依個案之停止非法用藥的使用狀態分為三階段：
  - **階段一**：密集監測治療初期，**每週**接受**看診評估**以及監測檢驗, 持續1個月呈現情緒穩定、態度合作、動機良好、精神狀態正常、沒有使用非法藥物，方可晉升第二階 (4 regular visits and all drug free) 。
  - **階段二**：密集監測治療中期，在本階需**隔週看診評估**以及監測檢驗，持續共2個月呈現情緒穩定、態度合作、動機良好、精神狀態正常、沒有使用非法藥物，方可晉升第三階 (4 regular visits and all drug free)。
  - **階段三**：一般監測期及追蹤期，**每月看診評估**以及監測檢驗，情緒穩定、態度合作、動機良好、精神狀態正常、沒有使用非法藥物，則維本階至治療結束。
- **切勿將醫療 = 驗尿行為**

分階制度

- 治療期間依個案之停止非法用藥的使用狀態分為三階段：
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- **切勿將醫療 = 驗尿行為**

降階標準

- 各階段所要求的是個案能達到停止使用非法藥物行為（持續監測通過）才能晉階情緒不穩定
  - 態度不合作
    - 診間出現威脅、恫嚇、攻擊之言語或行為
    - 連續兩次(含)未回診評估，或有兩次(含)出現此情形
  - 動機低落
  - 精神狀態異常
  - 使用非法藥物之相關證據：包括看診時之表現、親友報告、尿液檢查異常等