

# Forum

THE QUARTERLY NEWSLETTER FOR CLINICAL HEALTH CARE PROFESSIONALS ON ADDICTION TREATMENT

Vol. 14, #4 • Fall 2005

**Addictions are often wrongly viewed as acute conditions, like a broken leg or infection, that can be fixed by brief episodes of treatment.**



## New Understandings of an Old Concept

As the Summer 2005 edition of *AT Forum* observed, addiction “recovery” is an old concept like “love”; people use the term easily, yet precise descriptions as an aid to understanding are elusive.

A better understanding of addiction recovery as a process is vital for measuring successful outcomes and guiding future investments in treatments. The challenge is that there appear to be *many paths to recovery* and little is known of the most effective pathways from scientific perspectives.

## “Global Health” Goals

Although there are elaborate schemes to measure the prevalence of alcohol and other drug (AOD) addiction and its consequences, there is no similar mechanism for assessing the frequency of recovery from such problems. Estimates of recovery rates have ranged from 30% to 70%, depending on situations, substances involved, and definitions of the process.[1]

In an important article seeking to debunk myths about addiction and its treatment, O’Brien and McLellan observed that addictions are chronic disorders. Yet a misguided perspective is to view them as acute conditions, like a broken leg or infection, that can be fixed by brief episodes of treatment.[2]

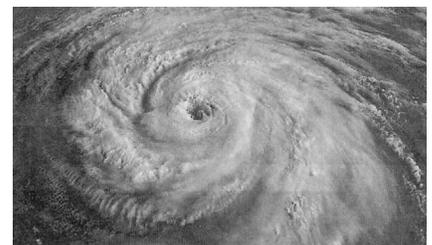
In a recent essay on the subject, White and Kurtz [1] emphasized the need for a shift from merely focusing on AOD problems, and their treatment, to considering them within the context of a broader model of *recovery*. They define this as a

## Clinical Concerns

### Disaster Preparedness: MMT Patients Overlooked?

The essence of disaster preparedness is to think about the *unthinkable* and then *plan for it to happen*.

The many failures in planning and implementation that came to light following the Gulf Coast hurricanes last August-September highlighted the vulnerability of widespread American populations in the wake of disaster. At the same time, the special problems faced by methadone maintenance treatment (MMT) patients became evident.



### A Reluctance to Plan

A decade ago, when *AT Forum* did its first survey on disaster preparedness only about 60% of MMT clinics said they had a disaster plan.[1] It turns out, however, those plans largely focused on a 1 or 2 day forced closing due to weather, power outage, small fire, or the like. Solutions were simple: a nearby MMT clinic or a local hospital would fill in, briefly.

Following the terrorist actions of 9/11/01, there were severe interruptions of services at some New York City MMT clinics. Fortunately, with the cooperation of local authorities and clinics, displaced patients were quickly served at other facilities.

In a second *AT Forum* survey after the 9/11 events, approximately 30% of respondents said they had revised their

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*AT Forum* is made possible by an educational grant from Mallinckrodt Inc., a manufacturer of methadone & naltrexone.

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## Events to Note

For additional postings & information, see:  
[www.atforum.com](http://www.atforum.com)

### December 2005

#### American Academy of Addiction Psychiatry – 16th Annual Meeting

December 8-11, 2005  
Scottsdale, Arizona  
Contact: [www.aaap.org/home.htm](http://www.aaap.org/home.htm)

#### American College of Neuropsychopharmacology 44th Annual Meeting

December 11-15, 2005  
Waikoloa, Hawaii  
Contact: 615-322-2075; [www.acnp.org/](http://www.acnp.org/)

### January 2006

#### 7th International Conference on Pain & Chemical Dependency

January 11-14, 2006  
Brooklyn, New York  
Contact: 718-246-7000;  
[painandchemicaldependency.org/](http://painandchemicaldependency.org/)

#### Psychopharmacology Update: American Academy of Child & Adolescent Psychiatry

January 27-28, 2006  
New York City, New York  
Contact: 202-966-7300; [www.aacap.org/](http://www.aacap.org/)

### February 2006

#### American College of Psychiatrists Annual Meeting

February 22-26, 2006  
San Juan, Puerto Rico  
Contact: 510-704-8020; [www.acpsych.org/](http://www.acpsych.org/)

### LATER 2006...

#### Society of Behavioral Medicine 27th Annual Meeting

March 22-25, 2006  
San Francisco, California  
Contact: 856-439-1297; [www.sbm.org/](http://www.sbm.org/)

#### AATOD (American Association for the Treatment of Opioid Dependence) National Conference

April 22-26, 2006  
Atlanta, Georgia  
Contact: 856-423-3091; [www.aatod.org](http://www.aatod.org)

#### ASAM (American Society of Addiction Medicine) 37th Annual Medical-Scientific Conference

May 4-7, 2006  
San Diego, California  
Contact: 301-656-3920; [www.asam.org](http://www.asam.org)

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and/or our web site, fax the information to:  
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## Straight Talk... from the Editor

### Avoiding Disaster After the Disaster

As noted in this edition of *AT Forum*, the aftermath of a disaster can last for days or weeks, and MMT clinics within a broad geographic area may be closed. Medication becomes scarce or inaccessible; not just methadone, but all vital medicines that an MMT patient may need.

And so, the disaster becomes even more of a tragedy as patients needlessly suffer further consequences. While effective disaster planning is an elaborate process, here are some immediate suggestions.

#### What Can MMT Clinics Do?

First, if there is advance warning of potential disaster, patients will need a supply of methadone (and other vital medications) to hold them over. The amount of methadone provided should ideally take into account a worst-case scenario – and then some – since it cannot be assumed that emergency medical centers or shelters will have methadone on hand, or be willing to provide it.

Second, if the MMT clinic shuts down patients need to know what to do, where to go, and who to contact. These instructions should be provided *in writing*, including addresses and phone numbers of alternate locations extending well beyond the immediate geographic area. A map showing how to get there and public transportation routes could be essential.

Third, when patients get to an alternate site they will be asked for proof that they are current MMT participants. While high tech, interconnected patient-information databases have been considered, they have yet to become a reality.

With a simple word processing program using data merge features, any clinic should be able to easily and economically provide official letters customized for each patient, including: identifying information, methadone dose and take home allowances, a listing of other prescribed medications, and the like.

For security purposes, a small photo could be affixed to the letter; in fact, many software programs allow automatically printing a stored digital photo that cannot be altered. Or, requiring nothing more than an ink pad, the patient's thumbprint could be added to the document in the presence of a clinic staff member.

#### What Can MMT Patients Do?

Patients need to assume some responsibility for ensuring continuity of

their medication following a disaster. You should have your own plan for what you can and should do.

For one thing, make sure you have the information described above and keep it with you at all times. Or, at least make it the first thing you grab if evacuating your home.

Make a checklist of all medications, including methadone, that you'd need to have with you in case of emergency. Keep all of these medicines in one general area so you can quickly pack them up – use the checklist as a guide. Also pack empty take home methadone bottles, since their labels with your name on them can help prove you are an MMT patient, as can recently paid receipts from your clinic.

All of these suggestions are achievable today, without expensive technology or great effort. Also, help us update our survey on disaster planning by responding to the questions below.

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#### NEW SURVEY: Disaster Plan Update - 2005?

*Please respond to the following survey questions:*

1. Has your MMT clinic reviewed and updated its disaster/emergency plans in the past year?  
 Yes;  Not sure;  No
2. How familiar are you with your MMT clinic's disaster/emergency plans and procedures?  Very familiar;  Somewhat familiar;  Not at all familiar
3. How certain are you that you (or, your patients) would receive adequate continuity of MMT in the event of a disaster/emergency?  
 Very certain;  Somewhat certain;  Not at all certain
4. Are you responding as a  patient, or  MMT clinic staff member?

*There are several ways to respond to AT Forum surveys: A. provide your answers on the postage-free feedback card in this issue; B. write, fax, or e-mail [info above]; or, C. visit our web site to respond online. As always, your written comments are important.*

disaster plans.[2] However, some of those changes only involved heightened security to guard against terrorism and fully 70% of those responding either had not altered their plans or did not know if changes were made.

### A New Level of Disaster in the U.S.

Hurricanes Katrina and then Rita, within a span of several weeks, took the concept of disaster in the U.S. to higher levels. Ironically, in the case of New Orleans, there had been forethought given to a catastrophic hurricane. Just last year a simulation exercise in New Orleans with a fictitious category 3 hurricane had accurately predicted the scenario, but funds to prevent the devastation were never allocated.[3] And, the well-being of MMT patients, as well as other persons in addiction treatment, were not taken into account at all.

Katrina resulted in thousands of persons becoming almost instantly homeless and separated from medical support. Being cut off even temporarily from treatments for diabetes, kidney disease, HIV/AIDS, and many other conditions can be life threatening. In the overall scheme of things, medications for treating mental health problems and addiction were not a high priority of rescue organizations.

### Tales From the Front

Prior to the hurricanes an estimated 600,000 residents in Louisiana alone were alcohol and/or drug dependent, with up to 1,800 on waiting lists for treatment. In the wake of the hurricanes, MMT programs serving more than 1,300 patients in New Orleans were indefinitely closed.[4] Hundreds of MMT patients were left behind without access to continuing care, while evacuees suddenly were far from home searching for alternate clinics.

Tales of MMT patients' fates slowly filtered through the chaos. The only major website providing first-hand reports from patients and others was sponsored by NAMA (National Alliance of Methadone Advocates).[5] This, plus various media reports and government bulletins, helped depict what was happening.[4-9]

- According to mixed reports, Gulf Coast MMT patients were given only a 2 to 4 day take-away supply of methadone before Katrina hit and sent on their way.
- SAMHSA issued guidance requiring that "emergency guest" MMT patients must have valid picture identification and proof of having received services

at a clinic located in a storm-affected area. The guidance letter attempted to stress a flexible approach; however, current Federal Regulations were frequently cited even though these were not designed to address emergency situations.

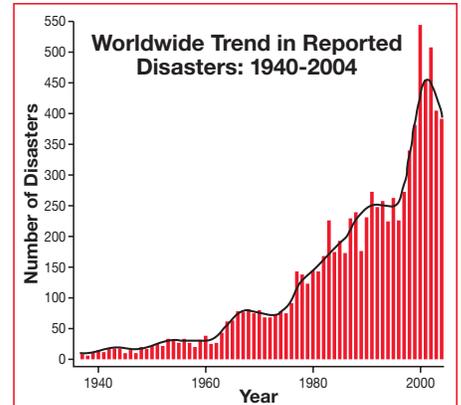
- About 2 weeks after Hurricane Katrina had passed, SAMHSA said it was sending \$600,000 in "mental-health grants" to the region. Of that, only \$150,000 was used for MMT relief (in Texas); the rest went to general mental health services.
- Meanwhile, the NAATP (National Association of Addiction Treatment Providers) quickly pledged \$5-million worth of inpatient and other addiction treatment services for Katrina victims. According to Ronald J. Hunsicker, NAATP president, "Here we can demonstrate that the private sector... can respond in a way that the federal government can't or won't."
- MMT programs outside storm-stricken areas were overwhelmed by an influx of displaced patients. Manufacturers of methadone provided free supplies of the medication specifically for storm victims. However, there were anecdotal reports of some clinics following rigid rules making treatment access and payment difficult for these patients.
- One group of treatment professionals sponsored by the Chicago Recovery Alliance packed a special van with supplies and headed south. Their services were rejected throughout the storm-devastated region and within a short time they were headed home.
- According to one report, there were so many evacuees going through untreated drug withdrawal at the Houston Astrodome and other evacuation centers that medical workers mistakenly thought they were dealing with a viral infection outbreak.

Certainly, the hurricanes affected millions of persons, not just those in addiction treatment. It also is clear, however, that MMT patients and the clinics that serve them were among the most at risk and unprepared.

### More to Come?

Are more major disasters lurking in the future? Just this past year, besides hurricanes, there have been numerous calamities worldwide – storms, earthquakes, landslides, tsunamis, fires, terrorist acts – that could happen in the U.S. And, as populations have grown in susceptible areas, problems have gotten worse.

There is credible evidence that the numbers of disasters through the past several decades have dramatically escalated (see *Graph*). Although some of the increase may be due to better event reporting, the alarming trend might be expected to continue and affect ever-increasing numbers of people.[10]



It appears that the poor outcomes of many disasters are not due to lack of knowledge; rather, they result from poor advance planning, inaction or poor implementation of any existing plans, and/or the failure to apply measures to contain or lessen the impact of disasters when they do occur.[10] As *AT Forum* has noted in the past: A good disaster plan is like health insurance for any MMT clinic and the patients it serves. It is hoped that it will never be needed; but gratefully appreciated and essential in the event that it is called into action.[2]

1. Leavitt SB. Disaster preparedness – are you ready? *AT Forum*. 1995(Spring);4(2). Available at: [http://www.atforum.com/SiteRoot/pages/current\\_pastissues/VolIVS.shtml#anchor442014](http://www.atforum.com/SiteRoot/pages/current_pastissues/VolIVS.shtml#anchor442014).
2. Leavitt SB. Survey results – 9/11 disaster aftermath. *AT Forum*. 2002(Summer);11(3). Available at: [http://www.atforum.com/SiteRoot/pages/current\\_pastissues/summer2002.shtml#anchor1221777](http://www.atforum.com/SiteRoot/pages/current_pastissues/summer2002.shtml#anchor1221777).
3. FEMA. Hurricane Pam exercise concludes. 2004(July). Available at: <http://www.fema.gov/news/newsrelease.fema?id=13051>. Access checked 10/11/05.
4. Currie CG. A letter from the SAMHSA Administrator – guidance to the State Methadone Authorities (SMA) and Opioid Treatment Programs (OTP). Online at: [http://www.samhsa.gov/Disaster/katrina\\_curie\\_050909.aspx](http://www.samhsa.gov/Disaster/katrina_curie_050909.aspx). Access checked 10/12/05.
5. NAMA's emergency help page was accessed at: [http://www.methadone.org/emergency\\_page.html](http://www.methadone.org/emergency_page.html). The special Help Forum Bulletin Board was available at: [http://www.readybb.com/nama\\_wespeakmethadone/viewforum.php?f=17](http://www.readybb.com/nama_wespeakmethadone/viewforum.php?f=17).
6. Keilman J. Storm chaos cuts help for addicts. *Chicago Tribune*. 2005(September 9);1:4.
7. Curley B. Katrina causes wave of addiction problems. *Join Together Online*. 2005(September 26). See: <http://www.jointogether.org>.
8. Bell J, Brown MH. Drug addiction adds to burden of victims. *Baltimore Sun*. 2005(September 13).
9. On Bourbon Street, the junkies are jumpy. *Reuters*. 2005(September 6).
10. EM-DAT: The OFDA/CRED international disaster database. Brussels: Université Catholique de Louvain; 2005.

### CSAT Launches TIP 43: Medication-Assisted Treatment for Opioid Addiction

In late October 2005, CSAT released its newest guidance for opioid treatment programs (OTPs) on the use of methadone, LAAM, buprenorphine, and naltrexone. This is certain to become a must-have, must-read text for all persons working in the field.

This new addition to CSAT's Technical Improvement Protocol series (TIP 43) is titled, *Medication-Assisted Treatment for Opioid Addiction in Opioid Treatment Programs*. Besides offering extensive fresh material, it combines and updates 4 earlier TIPs: A) *State Methadone Treatment Guidelines* (TIP 1, 1993); B) *Assessment and Treatment of Cocaine-Abusing Methadone Maintained Patients* (TIP 10, 1994); C) *Matching Treatment to Patient Needs in Opioid Substitution Therapy* (TIP 20, 1995); and, D) *LAAM in the Treatment of Opiate Addiction* (TIP 22, 1995).

Called the "MAT-TIP," for short, it is a wide-ranging volume containing 14 chapters and 6 appendices in its 332 pages. Its development represented a massive effort spanning several years by a Consensus Panel led by Steven L. Batki, MD, and his co-chairs, including: Janice F. Kauffman, RN; Ira Marion, MA, Mark W. Parrino, MPA; and, George E. Woody, MD. Dozens of other experts in the field contributed as editorial advisors, panelists, resource staff, field reviewers, and in other roles.

The text is weighted heavily toward methadone maintenance treatment (MMT) and, secondarily, buprenorphine maintenance, as might be expected. LAAM is covered less extensively (considering it is not currently available) and naltrexone is discussed relatively briefly as an abstinence-supportive therapy. Clinical, counseling, and administrative issues regarding medication-assisted treatment (MAT) are explored extensively and readers may first want to focus on sections addressing their particular interests.

One new section that immediately should be required reading for everyone is Appendix D: Ethical Considerations in MAT. It addresses accepted principles of medical ethics encouraging fair, equitable, and safe treatment of all patients. The application of these principles in everyday practice, and how to resolve conflicts that arise in their implementation, could serve as the subject of an in-service education program in any clinic.

It should be noted that the 625 references cited in the text seem extensive, but are actually rather modest in number considering the vast scope of the subject matter. Along with that, some of the tables, particularly those relating to pharmacology issues, are less complete and current than those found in other reference sources. Still, this TIP manual is likely to become an "OTP bible" of sorts for guiding clinics in their policies, practices, and operations for some time to come.

**Source:** Center for Substance Abuse Treatment. Medication-Assisted Treatment for Opioid Addiction in Opioid Treatment Programs. Treatment Improvement Protocol (TIP) Series 43. DHHS Publication No. (SMA) 05-4048. Rockville, MD: Substance Abuse and Mental Health Services Administration; 2005.

**To order a free copy, visit:** <http://ncadi.samhsa.gov/research/library.aspx> and search on "TIP 43."



### After 40 Years the Basics of MMT Are Still Valid

Last August (2005) marked 40 years since publication in the *Journal of the American Medical Association* of positive results from a small clinical trial of methadone as a treatment for heroin addiction. The landmark study, conducted at Rockefeller University in New York City by Drs. Vincent P. Dole and Marie Nyswander, suggested that methadone could control the withdrawal and cravings leading to relapse in opioid-addicted individuals who attempted to quit.



*Dole & Nyswander at their 1965 wedding.*

Their pioneering paper has become one of the most often cited in medical literature. However, according to some reports, the paper almost never made it to press at all. The Drug Enforcement Administration considered Dole's research illegal and had threatened to prosecute him prior to its publication – a warning that he obviously ignored.

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The study was initially greeted with skepticism from physicians who considered methadone maintenance treatment (MMT) as merely substituting one addiction for another, rather than as a bona fide therapy. Even those within the addiction treatment community opposed this new modality, fearing they would have to compete with MMT for funding and political support.

The Dole/Nyswander paper reports on 22 men in MMT for periods of 1 to 15 months. Certain essential aspects of this first trial are worthwhile noting:

- Patients were started on 10 to 20 mg of methadone, twice daily, and split dosing was continued for some time during a gradual dose increase.
- Through a 4-week induction period, patients were stabilized on from 50 to 150 mg of methadone once daily. Almost all required the higher doses and 2 patients eventually reached 180 mg/d during the 15 month study period.
- With an optimally adequate dose, patients did not become euphoric, sedated, or sick due to opioid abstinence effects at any stage of treatment.
- In susceptible patients, acute emotional distress (anxiety) caused symptoms similar to withdrawal syndrome, which were relieved in most cases by comforting reassurances from staff and required no additional medication.
- Constipation was noted as the most prominent medical problem – a natural effect of opioid medication – and this was easily managed with daily laxative agents, or enemas as necessary for more severe constipation.

Dole and Nyswander observed that, "Maintenance of patients with methadone is no more difficult than maintaining diabetics with oral hypoglycemic agents, and in both cases the patient should be able to live a normal life." However, they also were careful to point out that "giving of medication [methadone] has been only part of the program," and that this paper was merely a progress report on a small number of patients. They

*Continued on page 5*

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concluded that a larger-scale trial seemed justified and the rest, as they say, is history.

**Sources:**

- Dole VP, Nyswander M. A medical treatment for diacetylmorphine (heroin) addiction: a clinical trial with methadone hydrochloride. *JAMA*. 1965 (August 23);193:646-650.
- Kuehn BM. Methadone treatment marks 40 years. *JAMA*. 2005;294(8):887-889.
- Leavitt SB. MMT pioneers: Vincent Dole, MD – “father” of MMT. *AT Forum*. 2005(Spring);14(2):6. Available at: [http://www.atforum.com/SiteRoot/pages/current\\_pastissues/spring2005.html#mmtioneer](http://www.atforum.com/SiteRoot/pages/current_pastissues/spring2005.html#mmtioneer).

## Optimal Methadone During MMT Assessed

Research from around the world continues to confirm that Dole and colleagues had it “right” in the beginning (see above); that is, higher rather than lower methadone doses are most appropriate for the majority of patients in MMT.



Along with this, daily methadone doses required to suppress continued opioid abuse are higher than those needed to merely stem opioid withdrawal symptoms.

In a report last summer from Redfern, NSW, Australia,[1] researchers assessed methadone dose and 24-hour trough serum-methadone levels (SMLs) in 94 MMT patients classified either as treatment “responders” or “non-responders” based on urine toxicology evidence of recent illicit-opioid abuse.

Treatment responders (n=57) were receiving significantly higher average daily methadone doses (147 mg/d) than non-responders (n=37; 73 mg/d), and had higher mean trough serum-methadone levels than non-responders (SML: 409 vs. 266 ng/mL racemic [R+S] methadone). Further analyses revealed that methadone **dose** and **duration of treatment** were most significantly associated with successful treatment response. Each year of MMT and each added 20 mg/day of methadone increased the odds of abstinence from illicit opioid use by 34% and 36%, respectively.

It is important to note that, in this study, the methadone dose-to-body-weight ratio and trough SML were no better predictors of treatment response than daily dose. That is, the amount of daily methadone dose was a good gauge of how patients would respond to MMT and, in those patients who continue opioid abuse, increasing the dose to between 100 and 140 mg/d is an appropriate procedure. However, some patients may respond to doses below those thresholds while others may require significantly more daily methadone. “There is no ‘one size fits all,’” the researchers emphasized.

In support of the Australian study, a very recently reported trial from Johns Hopkins School of Medicine, Baltimore, MD,[2] also found that higher methadone doses were most effective in suppressing illicit heroin use. In a small group of volunteers, they compared 50, 100, and 150 mg/d of methadone and found that heroin abuse decreased as the dose levels increased.

The researchers found that larger methadone doses more completely blocked the subjective effects of heroin and produced greater withdrawal suppression. They concluded that the superior efficacy of 100 to 150 mg/d may result from greater cross-tolerance to the reinforcing effects of heroin at those dose levels. Thus, their results support other clinical and laboratory-based

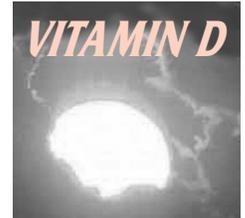
research indicating that persistent heroin abuse during MMT may be reduced by providing higher methadone maintenance doses that produce more effective cross-tolerance to heroin effects.

**References:**

1. Hallinan R, Ray J, Byrne A, Agho K, Attia J. Therapeutic thresholds in methadone maintenance treatment: A receiver operating characteristic analysis. *Drug Alcohol Depend*. 2005 (July); [Epub ahead of print].
2. Donny EC, Brassler SM, Bigelow GE, Stitzer ML, Walsh SL. Methadone doses of 100 mg or greater are more effective than lower doses at suppressing heroin self-administration in opioid-dependent volunteers. *Addiction*. 2005(October);100(10):1496-1509.

## Vitamin D: A Solution for Bone Aches During MMT?

Bone pain complaints among methadone maintenance treatment (MMT) patients are common and have raised concerns; even leading to a popular myth that “methadone gets in the bones.”[1] However, new evidence suggests these aches and pains may be due to a deficiency of vitamin D in at least some of those patients.



Adequate vitamin D is essential for healthy bones and teeth, and serious deficiencies have been linked to chronic pain, fatigue or weakness, mental illness, gum disease, autoimmune disease, and other maladies.[2] In one study, researchers assessed the prevalence of bone pain, vitamin D insufficiency, and osteoporosis in MMT patients and found that a majority of them (64%) reported bone pain.[3] Almost half of the patients overall believed that methadone adversely affected bone health.

However, the prevalence of vitamin D insufficiency was substantial in those patients, along with a high rate of osteoporosis, especially among male subjects.[3] Methadone was not attributed as a cause of these conditions and the researchers recommended that further study was warranted to address these conditions during MMT. Meanwhile, other investigations have associated vitamin D inadequacy with major depression and alcoholism [4] and tobacco smoking [5]; co-occurring conditions that are evident in many MMT patients.

In the general population, there is a growing consensus that vitamin D deficiency is more common than previously imagined,[6] and associations between vitamin D deficiency and musculoskeletal complaints have been noted in the medical literature.[7] For example, clinicians have stressed that the importance of vitamin D sufficiency in managing patients with chronic low back pain should be more widely recognized.[7,8]

In one study, 93% of 150 patients attending a primary care clinic in Minneapolis with persistent, non-specific musculoskeletal pain had deficient concentrations of vitamin D.[9] In another report, a majority of patients (83%) attending spinal and internal medicine clinics in Saudi Arabia who had experienced chronic low back pain with no obvious cause had an abnormally low level of vitamin D.[10] After treatment with vitamin D supplements, clinical improvement in symptoms was seen in all patients who initially had a low concentration of vitamin D.

The authors of these various studies concluded that, in patients with persistent musculoskeletal pain of unknown origin, screening for vitamin D sufficiency should be recommended and appropriate vitamin D supplementation in those found to be deficient should be advised.[7,9,10]

Assessment of vitamin D status is accomplished by measuring serum 25-hydroxyvitamin D concentrations. Some researchers have asserted that a minimum of 30 ng/mL (75 nmol/L) is desirable.[6]

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For adults, the 200 IU (5 µg) daily recommended dietary allowance of vitamin D may help prevent some bone weakening, with its associated pain, but this is inadequate intake for most persons.[2,11] The body itself makes vitamin D when it is exposed to the sun, and the recommended daily allowance is tiny compared to the amount generated by adequate sunshine. Vitamin D also is found in cheese, butter, margarine, fish and fish products, and fortified milk and cereals.

Vitamin D tablets as a dietary supplement are readily available and inexpensive at health food stores. This nutrient is potentially toxic, although vitamin D overdose is extremely rare. Daily amounts greater than 1,000 IU (25 µg) per day are typically avoided and a safe maximum intake of 2,000 IU/d (50 µg) has been noted by some sources. In many individuals, however, it is believed that greater daily supplementation may be necessary and safe in achieving optimum vitamin D serum levels.[2, 11]

The best approach to vitamin D supplementation and its efficacy and safety in MMT patients with musculoskeletal pains is yet to be fully determined. However, this appears to be a worthwhile area for consideration by MMT clinicians and researchers.

#### References:

1. Velten E. Myths about methadone. NAMA Education Series, Number 3. 1992.
2. Vieth R. Vitamin D supplementation, 25-hydroxyvitamin D concentration, and safety. *Am J Clin Nutr.* 1999;69:842-856.
3. Kim TW, et al. Bone health in methadone maintenance treatment. Paper presented at: CPDD (College on Problems of Drug Dependence) 65th Annual Meeting; June 2004; San Juan, Puerto Rico.
4. Schneider B, Weber B, Frensch A, Stein J, Fritz J. Vitamin D in schizophrenia, major depression and alcoholism. *J Neural Transm.* 2000;107(7):839-842.
5. Brot C, Jorgensen NR, Sorensen OH. The influence of smoking on vitamin D status and calcium metabolism. *Eur J Clin Nutr.* 1999;53(12):920-926.
6. Heaney RP, Dowell MS, Hale CA, Bendich A. Calcium absorption varies within the reference range for serum 25-hydroxyvitamin D. *J Am Coll Nutr.* 2003;22(2):142-146.
7. Lewis PJ. Vitamin D deficiency may have role in chronic low back pain [letter]. *BMJ.* 2005;331:109.
8. Koes BW. Surgery versus intensive rehabilitation programmes for chronic low back pain. *BMJ.* 2005;330:1220-1221.
9. Plotnikoff GA, Quigley JM. Prevalence of severe hypovitaminosis D in patients with persistent, nonspecific musculoskeletal pain. *Mayo Clin Proc.* 2003;78:1463-1470.
10. Al Faraj S, Al Mutairi K. Vitamin D deficiency and chronic low back pain in Saudi Arabia. *Spine* 2003;28:177-179.
11. Vieth R, Chan P-CR, MacFarlane GD. Efficacy and safety of vitamin D3 intake exceeding the lowest observed adverse effect level. *Am J Clin Nutr.* 2001;73: 288-294. Available at: <http://www.ajcn.org/cgi/content/full/73/2/288>.

process through which severe AOD problems are resolved in tandem with the development of physical, emotional, spiritual, social, occupational, and lifestyle health. These ultimate goals of recovery have been collectively termed "global health."

Somewhat similarly, McClellan and others [2,3] suggest that successful addiction treatment and recovery involves improvements in 3 areas: 1. reductions of AOD use; 2. increases in personal health and social functioning; 3. a decrease in threats to public health and safety. These are domains that can be measured by structured interviews – e.g., the Addiction Severity Index (ASI) – or validated questionnaires.

### Recovery Levels

Recovery might be described on at least 2 levels:[1]

- **Full recovery** – complete and enduring cessation of all AOD-related problems and significant movement toward global health goals.
- **Partial recovery** – one of possibly 2 conditions...

- A) reduced frequency, duration, and intensity of AOD use – albeit, not abstinence – and significant reductions in personal or social problems;
- B) achievement of complete AOD abstinence but a failure to achieve parallel gains in global health goals.

Partial recovery might be a permanent state, a stage on the way to full recovery, or an interruption in AOD progression with eventual relapse to a previous or greater level of problem severity. Many patients cycle in and out of recovery, with multiple treatment episodes, but reduced frequency, intensity, and duration of AOD escapades that may eventually lead to stable recovery.[1]

### Hitting Bottom

Individuals coming into addiction treatment usually have "hit bottom"; a condition in which they are physically, emotionally, morally, socially, spiritually, and often financially, bankrupt. For many, this sort of defeat is difficult to face, leading to some denial of the presence or extent of their seemingly hopeless circumstances.

Furthermore, there can be *high-bottom recovery* among persons who have yet to suffer severe losses related to their AOD abuse, and *low-bottom recovery* achieved by those who have suffered severe devastation in their lives due to addiction.[1]

A problem in understanding recovery is that addiction has been largely consid-

ered a self-inflicted disorder: "They brought it on themselves." [2] However, beyond the initial choice of whether or not to try a drug or alcohol, many elements of the addictive process are involuntary.

At some point after continued voluntary alcohol/drug-taking, the person experiences a compulsive, overwhelming, involuntary urge toward further AOD use and to relapse after a period of abstinence.[2] The mechanisms behind this change from use-to-abuse-to-addiction are still under investigation; however, it is clear that prolonged AOD abuse alters the functioning and chemical balance of the brain and affects behavior.[2,4]

As O'Brien and McClellan note, "Contrary to commonly held beliefs, addiction does not end when the drug is removed from the body (detoxification) or when the acute post drug-taking illness dissipates (withdrawal)." [2] They stress that the underlying neurobiological changes driving the addictive disorder persist long after the person becomes abstinent. And, of course, associated medical, psychosocial, and other difficulties do not quickly vanish either.

### Recovery Capital

The prospects for recovery are strongly influenced by an individual's *recovery capital*. This is the quantity and quality of internal and external resources that a patient has for initiating and maintaining recovery.[4] The interaction of addiction severity and recovery capital strongly influences the type, intensity, and duration of treatment required to help the patient along the road to recovery.

A graphic example of recovery capital can be demonstrated by two very different Addiction Severity Index (ASI) profiles (see *Graph on next page*). On the left (*in red*) is the profile of a physician with few personal or professional difficulties, except for severe addiction to opioid pain medications and some alcohol abuse. In contrast, the profile of a pregnant teenager (*in teal*) addicted to opioids and strongly abusing alcohol shows high severity in multiple problem areas.[2]

The treatment necessary for each of these 2 individuals and their recovery outlooks are quite different. Clearly, the physician has more recovery capital at the outset. Although his treatment will be challenging, his prognosis seems much better than for the young woman, unless the many problem components in her distressful situation can be addressed. This has important implications for her treatment plan.

## Treatment Smorgasbord

The scientific literature addresses abstinence-based, medication-assisted, and moderation-based recovery approaches.[2] Within those, various models of personal change have been proposed, all focusing on choices that the patient consciously or subconsciously makes.[1]

Along with that, addiction treatment in the U.S. encompasses a smorgasbord of diverse settings, philosophies, and techniques that vary significantly in their effectiveness and scientific support. Some treatment modalities endorsed by substantial scientific evidence – such as methadone maintenance treatment (MMT) – continue to be stigmatized.[5]

A significant portion of persons with severe AOD disorders achieve recovery only after multiple treatment episodes spanning a number of years. As a chronic condition, the expectation of a “cure” following treatment for addiction is unrealistic, since the adverse changes produced by the disorder are persistent.

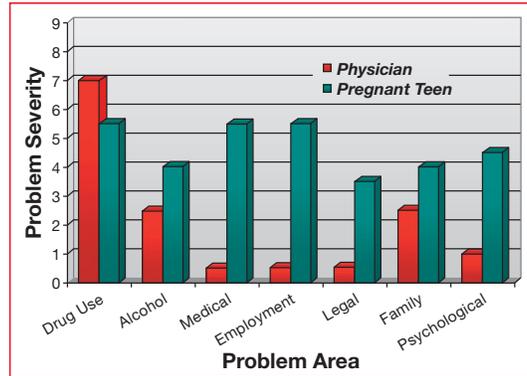
Up to 60% of patients begin using substances of abuse shortly after treatment cessation; regardless of the type of discharge, patient characteristics, or the particular substances involved.[3] Patient improvement is the most that should be expected from treatment alone and continuing maintenance therapy of some sort is required – whether psychosocial, pharmacological, or both.[2]

## Medication Controversy

Medication-assisted recovery has been controversial; yet, there has been much progress in the development of medications to treat most AOD disorders to some extent. And, contrary to some persistent opinions, continuing *maintenance* treatment for opioid dependence with methadone should be regarded as a component of successful recovery.[2]

Patients taking methadone as part of a comprehensive MMT program can become abstinent from alcohol and illicit substances and capable of fully functioning normally in their personal lives and society. This is akin to patients with asthma or hypertension being maintained on medications to sustain symptom remission and normal function – there is no cure for either affliction and behavioral changes usually are part of an ongoing recovery process.[2]

Methadone maintenance *treatment* might be more fittingly called *methadone-*



Adapted from O'Brien & McClellan [2]

*assisted recovery.* In that context, it can be appreciated that methadone is only a medicine and but one part of a broader therapeutic environment fostering recovery. Many patients have additional and severe problems – such as the pregnant teen in the example above – requiring intensive support besides methadone during treatment. Domestic difficulties must be resolved, new skills learned, behaviors changed, and psychosocial adjustments made as part of a recovery process: a difficult but possible road to travel.

Still, it must be acknowledged that patients sometimes come into MMT without a commitment to addiction recovery. Those seeking to cease opioid abuse might not be ready to abstain from other substances, such as cocaine, alcohol, or marijuana. And, even highly motivated patients actively seeking abstinence may experience drug lapses or even relapses, which are inherent in addiction as a chronic disease.[6]

## Ongoing Process

White and Kurtz [1] have suggested that persons in full, uninterrupted recovery for 5 years or more can be described as “recovered.” That is, the risk of future lifetime relapse to addiction has approached that of persons without any history of prior addiction. However, White has acknowledged that up to a quarter of persons treated for narcotic addiction, and who achieve 5+ years of sustained abstinence, later return to opioid use.[5]

White and Kurtz further note that use of the terms “recovering” or “in recovery” during later years of recovery reminds the individual that recovery is a process requiring ongoing vigilance and maintenance.[1] However, they propose that such terms convey the lack of a “permanent solution” for addiction and may contribute to the stigma and pessimism surrounding AOD problems.

The public perception is that “in recovery” implies a revolving door between periods of substance abuse and

attempts to quit. And, the public does not understand why persons in long-term recovery do not use more affirmative words – “former addict,” “recovered,” “no longer dependent” – referring to their current status.[4]

This raises the question: Is recovery ever completed? It is an important but problematic issue, because if there is a recovery end point there needs to be a way of objectively determining it.

McClellan and colleagues have consistently asserted that there are no reliable “cures” or end points for addiction and that persons in recovery can be at risk of relapse if they are not monitored, supported, and/or participating in some form of continuing therapy (including 12-step programs or other support groups, or private therapy).[3]

## Wounded Healers

According to White and Kurtz, many individuals experience such profound changes that they come to view addiction and recovery as “gifts” that have brought higher meaning to their lives.[1] This sustained attitude of gratitude experienced by those in successful recovery has been discussed previously in *AT Forum*. [7] Such persons achieve an “enriched state of recovery.” [1]

With the growth of a recovery advocacy movement, fostered by organizations such as Faces and Voices of Recovery (FAVOR), persons in recovery are invited to be recognized and speak out. This may bring about a new era of status, respectability, and understanding for addiction recovery. It carries forward a “wounded healer” tradition, providing living proof and spreading the word to others that addiction recovery is possible.[5]

1. White W, Kurtz E. The varieties of recovery experience: A primer for addiction treatment professionals and recovery advocates. Chicago, IL: Great Lakes Addiction Technology Transfer Center; 2005 (September). Available at: [http://www.facesandvoicesofrecovery.org/pdf/2005-09\\_white\\_kurtz.pdf](http://www.facesandvoicesofrecovery.org/pdf/2005-09_white_kurtz.pdf).
2. O'Brien CP, McLellan AT. Myths about the treatment of addiction. *Lancet*. 1996;347:237-240.
3. McLellan AT, McKay JR, Forman R, Cacciola J, Kemp J. Reconsidering the evaluation of addiction treatment: from retrospective follow-up to concurrent recovery monitoring. Philadelphia, PA: Triangle Research Institute; 2004 (October).
4. The search for common ground: Communicating with the public the reality about addiction and recovery. Washington, DC: Peter D. Hart Research Associates; 2005 (June).
5. White W. Treatment works: Is it time for a new slogan? *Addiction Professional*. 2005 (January).
6. Hagman G. Stages of change in methadone maintenance. *J Maint Addict*. 1997;1(1):75-91.
7. Leavitt SB. Silver linings in the clouds of addiction. 2002 (Summer); 11(3). Available at: <http://www.atforum.com>.

## AT Forum Survey Results: Contingency Management (CM)

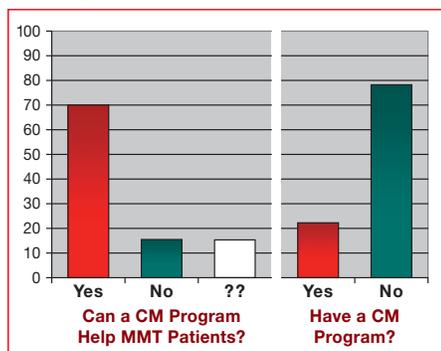
The Spring 2005 edition of *AT Forum* (Vol. 14, #2) featured a discussion and interview regarding contingency management (CM) approaches during methadone maintenance treatment (MMT). CM strategies provide a formal system of rewards (or positive reinforcements) motivating patients to achieve recovery goals, and continued illicit drug use and other misbehaviors become less attractive than more desirable alternatives.

Readers were asked to respond to a survey regarding CM practices in their MMT clinics. There were 150 responses at the *AT Forum* website or via response card, with 2/3 from clinic staff.

### Most Favor But Do Not Have CM

A majority of respondents (70%) believed that CM reward programs can be helpful for MMT patients (see *Graph*). Only 15% said "No" and another 15% were uncertain.

At the same time, however, most respondents (nearly 80%) indicated that their clinics *do not* have any sort of reward incentive program (see *Graph*). So, while CM approaches are considered to be worthwhile, relatively few MMT programs put them into practice.



### Many Types of Rewards Possible

Respondents also were asked what sort of goal-directed activities might be appropriate for reward incentives. About a third believe that achieving small steps toward a goal are worthy of reward; although, a majority (nearly 60%) feel that both small steps *and* achieving larger goals should be rewarded.

Finally, the survey asked about the sort of rewards that should be offered. Approximately one-third of respondents indicated that vouchers – redeemable for gifts, food, entertainment events, etc. – were preferred. Smaller tangible reward items were favored by 30%, and 20% preferred non-tangible rewards, such as special recognition in front of peers or staff.

In an "other reward" category, special discounts on the costs of clinic services or methadone were most frequently mentioned. Another often mentioned type of reward focused on increased clinic privileges or more flexibility in clinic attendance. Along with that, increased allowances of take-home methadone was a popular reward; however, this is limited by federal and state regulations.

### Readers Express Mixed Outlooks

"For the long-term MMT patient like me (11 years), I get bored without new rewards, or classes, or groups. Even a free pass to a movie or the zoo as a form of recognition would be extremely appreciated."

"This [CM] is demeaning and would make me feel like a child trying to win a spelling bee. If you accept that addiction is a disease, then it makes no sense that this sort of approach would change the biology of it."

"This is just another version of operant conditioning. You seem to forget that MMT patients are not experimental animals and did not sign up to be test subjects."

"I think CM can be helpful, but it should not be the only tool employed to help patients."

"Ideally, I think CM should be integrated into every clinic at some level, and it would be important if patients were more immediately rewarded for their positive behaviors."

"Any CM program needs to balance the need for rewards substantial enough to be meaningful and the limited resources with which most MMT programs operate."

#### ADDICTION TREATMENT

## Forum

is published quarterly by:

Clinco Communications, Inc.  
P.O. Box 685  
Mundelein, IL 60060  
Phone/Fax: 847-392-3937

Editor: Stewart B. Leavitt, PhD

Publisher: Sue Emerson

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Addiction Treatment Forum is made possible by an educational grant from Mallinckrodt Inc., a manufacturer of methadone and naltrexone. All facts and opinions are those of the sources cited. The publishers are not responsible for reporting errors, omissions or comments of those interviewed.

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