

Forum

THE QUARTERLY NEWSLETTER FOR CLINICAL HEALTH CARE PROFESSIONALS ON ADDICTION TREATMENT

Vol. 11, #3 • SUMMER 2002

MMT reduces cocaine abuse, but adequate methadone dose is critical.

IN THIS ISSUE

CONTROLLING COCAINE ABUSE	P. 1
HOPE FOR LIVER TRANSPLANTATION	P. 1
EVENTS TO NOTE	P. 2
EDITOR: INVITATION TO RESEARCHERS	P. 2
SILVER LININGS IN ADDICTION	P. 3
CONVOLUTED HISTORY OF COCAINE	P. 4
WHERE TO GET INFO	P. 5
SURVEY: 9/11 DISASTER AFTERMATH	P. 8

Clinical Concepts

Controlling Cocaine Abuse in MMT

Cocaine (including crack) abuse among persons in methadone maintenance treatment (MMT) is associated with numerous medical problems, criminal behavior, and poor psychosocial functioning. As previously discussed in *AT Forum*, [1,2] in some clinic populations, more than 70% of patients are cocaine users at admission and many continue such use during treatment.

Research on how to control cocaine abuse in MMT patients has been ongoing.

A Targeted Approach

In a new study, to be published this winter, [3] Stephen Magura, PhD and colleagues at NDRI investigated whether subjects in an enhanced MMT program would reduce their cocaine use more than those receiving standard treatment.

New York City-based NDRI (National Development and Research Institutes) is the largest independent organization devoted to behavioral science research on issues of drug abuse, AIDS, and related problems. With a staff of 200 professionals, it has been an independent entity primarily funded by federal grants since 1967.

For this NIDA-funded study, Magura and his team enrolled 141 cocaine-using patients at 4 MMT clinics operated by Beth Israel Medical Center, New York. Among those, 84 patients received standard MMT *plus* targeted psychosocial therapy sessions directed specifically at reducing cocaine use. There also were voucher incentives (up to \$15/week in value) for completing tasks as part of individualized Treatment

Continued on Page 4

Liver Disease in MMT: Treatment & Transplant

Part 4: Hope for Liver Transplantation

"I've been on methadone maintenance for 24 years, with hepatitis C for at least 27 years. After treatment for hepatitis failed, I was told that I'll never get a liver transplant if I stay on methadone. ...any suggestions?"

Unfortunately, the dilemma of this methadone maintenance treatment (MMT) patient is commonplace. Yet, there is hope for him and others in MMT who are persistent in their search for needed liver transplants.

Transplantation Denied

As the first article in this series pointed out, [1] as many as 14,000 persons in U.S. MMT programs may eventually need liver transplants for survival, primarily due to chronic hepatitis C (HCV). Yet, such patients are seriously underrepresented on transplant waiting lists.

Many transplant programs, while claiming to evaluate patients on an individual basis, refuse to consider MMT patients or require that they first withdraw from methadone. [2,3] A pivotal survey by Koch and Banys reported in 2001 that 44% of liver transplant centers did not accept persons on methadone and only 180 MMT patients had ever received transplants by those that did accept them. [4] An earlier survey by Awad and Chin [5] similarly found that, while many centers said they considered MMT patients, 41% never listed such patients for transplant.

Methadone seems to be unofficially perceived as an unnecessary and potentially complicating factor in liver transplantation. This might at least partially derive from the stigma and prejudice

Continued on Page 6

Events to Note

For updated postings & information, see:
www.atforum.com

OCTOBER 2002

ASAM Review Course in Addiction Medicine

October 24-26, 2002
Chicago, Illinois

Contact: 301-656-3920; www.asam.org

Psychiatric & Mental Health Congress

October 28-31, 2002
Las Vegas, Nevada

Contact: CME, Inc., 800-933-2632 or
949-250-1008

NOVEMBER 2002

National Prevention Network (NPN) 15th Annual Conference

November 2-6, 2002
San Diego, California

Contact: 503-945-5764;
barbara.fuller@state.or.us

AMERSA 26th Annual Conference

November 7-9, 2002
Washington, DC

Contact: 401-349-0000; Isabel@amersa.org

APHA (Amer. Public Health Assn.)

130th Annual Meeting

November 9-13, 2002
Philadelphia, Pennsylvania

Contact: 202-777-2504;
patricia.massenberg@apha.org

DECEMBER 2002

SECAD 2002 (Natl. Assoc. of Addiction Treatment Providers)

December 4-7, 2002
Atlanta, Georgia

Contact: 888-506-7394; www.naatp-secad.com

AAAP (Amer. Acad. Addiction Psychiatry) 13th Annual Meeting

December 12-15, 2002
Las Vegas, Nevada

Contact: 913-262-6161; meetings@aaap.org

COMING 2003...

NCAD/COSA Intl. Conf. on Addiction

February 1-2, 2002
Montgomery, Alabama

Contact: 334-262-1629; csancadd@bell-south.net

AATOD (Amer. Assn. for the Treatment of Opioid Dependence) 2003 Conference

April 13-16, 2003
Washington, DC

Contact: 856-423-7222 x360;
aatod@talley.com

[To post your event announcement in A.T. Forum and/or our Web site, fax the information to: 847-392-3937 or submit it via e-mail from www.atforum.com]

A.T.F.

Straight Talk... from the Editor

An Open Invitation to Researchers

We want to acknowledge and thank two investigators in the addiction treatment field – Stephen Magura, PhD and Arnold Washton, PhD – who shared a preview of their important research in this edition of *AT Forum* prior to its formal publication. If only there were more like them.

Fierce Competition

Typically, it can take many months, sometimes years, from the time a research report is submitted to a journal until it actually appears in print. While those manuscripts sit on an editor's desk, the addiction treatment field is unaware of often vital findings that might help guide clinical practices for improved patient outcomes – today.

The extreme lag time from submission to publication is due to intense competition. Each year more than 2 million articles are published in about 20,000 biomedical journals, many of them quite obscure publications. MEDLINE indexes only 4,600 journals and, in 2001, listed about a half million articles. A mere 150 of those articles were specific to methadone, which is a focus of *AT Forum*, and none of them were clinical trials.

Furthermore, there are fewer than 2 dozen premier journals specific to the addiction treatment field. One can only imagine how many papers are in the pipeline awaiting future appearance in print, or how many more were rejected primarily due to space limitations.

Unique Opportunity

AT Forum has neither the space nor inclination to publish the full text of scientific papers, but we can convey important research results in a timely fashion. Our mission and unique niche is to summarize findings, along with interviews of the author(s), to provide an interpretation and explanation for our readers. We always acknowledge the respective upcoming journal article, if appropriate, so readers can later pursue more complete details.

Some researchers have expressed concerns that notice in *AT Forum* might preclude formal publication of their papers in scientific journals requiring that submitted articles have not been previously published. However, editors do not object to advance summaries of vital research findings during scientific

conferences or in news publications like *American Medical News*, *Psychiatric Times*, or *AT Forum*. In fact, one editor told us he welcomes such notice, since it, in effect, helps promote his journal.

Avoid the Wait

So, our open invitation is to all of you in the field who have research results of interest to *AT Forum* readers. Let us know (see contact info below). While you're waiting in line a year or two for journal publication – and hoping your findings will still be current and relevant when they come off press – you could be sharing your basic message with addiction treatment practitioners who can put the information to immediate use.

Survey – Alcohol in MMT?

As the article in this edition featuring Magura's research points out, MMT can be helpful in controlling cocaine abuse. However, other substances of abuse also are of concern, and alcohol use can be a particularly difficult problem.

In advance of an upcoming article on the subject, please respond to the following reader survey:

1. What percentage of patients at your MMT clinic continue to use alcohol?
_____%
2. Is alcohol use during MMT considered ___ a serious problem, ___ of some concern, ___ of no significant consequence?
3. Does your clinic have special programs or counseling for alcohol-using patients? ___ yes; ___ no; ___ don't know. If "yes," please briefly describe:
_____.

Are you responding as a ___ staff member; ___ patient.

There are several ways to respond:

A. provide your answers on the postage-free feedback card in this issue; **B.** write or fax us [see info below]; or, **C.** visit our Web site to respond online. As always, your *written comments* are important for helping us discuss the results in an upcoming issue.

Stewart B. Leavitt, PhD, Editor

stew202@aol.com

Addiction Treatment Forum

P.O. Box 685

Mundelein, IL 60060

Phone/Fax: 847-392-3937

Internet: <http://www.atforum.com>

A.T.F.



Part 9: Silver Linings in the Clouds of Addiction

"The world breaks everyone and afterward many are strong at the broken places."

– Ernest Hemingway in *A Farewell to Arms*.

People who have survived seriously adverse events often report that they were positively changed by the otherwise devastating life experiences. Finding such "silver linings in the clouds" and capitalizing on them may have significant therapeutic value and healing powers.

Accentuating the Positive

Recent research by Arnold M. Washton, PhD has turned attention toward the potential benefits that can be gained as byproducts of peoples' struggles with addiction to help them in recovery.[1] Washton, who heads the Center for Addiction Psychology in New York City, has been in the addiction treatment field since 1975, including experience in directing a methadone maintenance treatment (MMT) program.

"In the past, clinical psychology has focused on the negatives – what's wrong with people," he says. "Consequently, treatments are geared toward ameliorating illness." However, another approach emerging during the past decade or so focuses on what's *right* with people, taking into account their inner strengths and looking at factors that allow people to spring back from adversity.

What Doesn't Kill You Makes You Stronger

Washton, in collaboration with his wife, Loraine J. Washton, MA, was inspired by research from Curtis McMillen at Washington University in St. Louis.[2,3] During interviews with patients in addiction treatment, McMillen's team discovered a number of factors that were commonly reported as byproducts of their struggles, such as: increases in self-efficacy and self-knowledge, greater closeness with family and others, enhanced compassion and spirituality, and changes in life priorities.[2]

Such perceptions of benefit were more than just a Pollyanna-like denial of negative consequences. Instead, while admitting that they had been harmed by a life of addiction, patients more frequently reported positive rather than negative changes as a result. Interestingly, other researchers had found the same thing in

survivors of cancer, heart attacks, tornados, rape, war, and other catastrophes.[3]

Starting with the factors reported by McMillen et al.,[2] the Washtons developed a 27-item self-administered questionnaire. This was completed by 50 of their patients who had participated in addiction treatment for 1 to 53 months.

Items most heavily endorsed by patients were those involving changes in life priorities, compassion toward others, honesty with self/others, a better outlook on life, and enhanced spirituality. Those ranked lowest had to do with benefits regarding employment, finances, and life planning. It is important to note, however, that these patients were all professional persons, primarily recovering physicians, dependent on alcohol or prescription opioids, and also participating in 12-Step groups of some sort.

Heeding the Wake-up Call

Arnold Washton acknowledges that it is difficult to know in these patients what role treatment and self-help programs played in producing positive byproducts, compared with persons who struggle with substance dependence on their own. Also, patients who were merely compliant with treatment rather than committed to recovery scored lowest in terms of perceived benefits. Furthermore, those with longer successful tenures in recovery scored higher, as might be expected – there was an accrual of positive byproducts over time.

Washton notes that addiction served as a catalyst in many persons for positive life changes that never would have otherwise come about. "Addiction was their 'wake up call,' starting them on a path toward personal growth," he says.

From a therapeutic perspective, Washton observes that the literature in the field emphasizes negative consequences of addiction, with little discussion of positive byproducts. Focusing on how patients' lives may have changed for the better as a result of success in recovery would, among other things, help relieve the shame and guilt of past behaviors. Similarly, McMillen suggested that focusing on positive byproducts involves assessing

patients' strengths and helping them use those to solve life problems.[3]

Relevance for MMT?

Would this approach apply to typical patients in MMT programs?

Washton's patients were educated, functional, and with essentially good lives waiting upon return from their ventures into substance dependency. The experience might be different for less functional persons who must completely rebuild their shattered lives during recovery.

McMillen noted that people of lower socioeconomic status may have difficulty benefitting from adversity because they have fewer life-changing options and resources available to them. Still, he conceded, people whose lives were lacking in some ways before an adverse event may be those most likely to benefit from changes in life structure and their views of themselves and others.[3]

Washton says that emphasizing positive aspects of recovery is a vital tool of good therapists and his research suggests opportunities for further discovery. There are plans to adapt his questionnaire for testing in MMT programs and it should be interesting to see how benefit rankings might differ across patient groups.

In general, it appears that many people are able to find benefit from their adverse life experiences, to "grow strong at their broken places," and in a variety of ways. This is not an entirely new concept. Victor Frankl, a Nazi holocaust survivor, once noted: "Suffering ceases to be suffered in some way at the moment it finds meaning." [4] Perceiving advantages from an adverse life experience like addiction is a way of attaching meaning to it, and whether or not this positive outlook reflects a true gain may not really matter.

1. Washton AM. Positive byproducts of the struggle with addiction. *J Addict Dis.* 2002;21(2):143. Abstract 39A.
2. McMillen C, Howard MO, Nower L, Chung S. Positive by-products of the struggle with chemical dependency. *J Subst Abuse Treatment.* 2001;20:69-79.
3. McMillen C. Better for it: how people benefit from adversity. *Social Work.* 1999;44(5):455-468.
4. Frankl VE. *Man's Search for Meaning.* Boston: Beacon Press; 1962: 115.

The Convoluted History of Cocaine

For thousands of years, South American Indians had chewed native coca plant leaves for energy and endurance. Word of this spread finally to Europe during the 19th Century through reports of explorers and botanists, and purified cocaine was derived from coca in 1855.

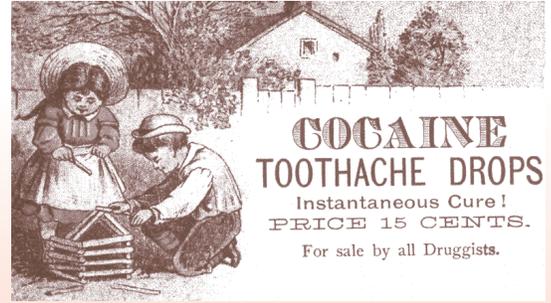
Stories about the virtues of cocaine inspired makers of wines and tonics to add the drug to their products. In 1884, Sigmund Freud published his famous essay "Uber Coca," praising cocaine for use as a stimulant, aphrodisiac, and local anesthetic; and as a medicine for asthma, stomach disorders, nervous exhaustion, hysteria, and depression. Ironically, Freud, who used cocaine daily himself, also recommended the drug to alleviate withdrawal from alcohol or morphine addiction.

At about that time, Atlanta druggist John Pemberton concocted a medicinal soda water containing cocaine and caffeine called "Coca-Cola." Many other

cocaine-laced remedies also became popular – as the advertisement on this page from 1885 implies, for a mere 15 cents at any pharmacy cocaine drops would make child's play of a toothache, instantly.

There were no restrictions placed on acquiring or using these products, and the addictive powers of cocaine's euphoric and stimulant effects became slowly recognized through news reports of its dangers. In 1903, cocaine was removed from Coca-Cola in response to public outcries.

The Harrison Narcotic Act of 1914, which mistakenly listed cocaine as a narcotic, banned its use in proprietary products and tightened restrictions on the manufacture and distribution of coca-derived medications. Today, cocaine and its derivatives are still popular local anesthetics for eye, ear, nose, and throat surgeries.



Unfortunately, during the late 1970s there was a resurgence in illicit cocaine use, including the introduction of smokable "crack" cocaine that is even more powerful and addictive. Thus, a drug with genuine medicinal properties when properly used has instead become a source of dreaded affliction in modern society.

See also: Brain PF, Coward GA. A review of the history, actions, and legitimate uses of cocaine. J Subst Abuse. 1989;1(4):431-451.

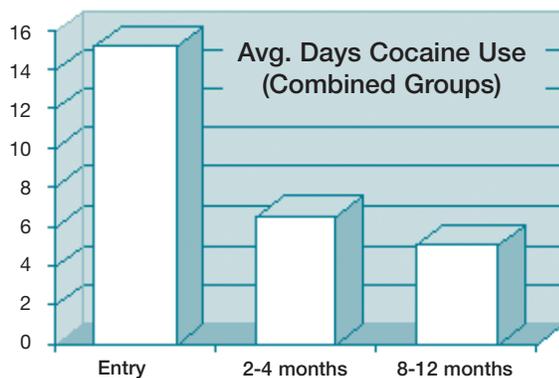
Clinical Concepts

Continued from Page 1

Reinforcement Plans, such as attending therapy sessions or self-help groups, avoiding drug-use triggers, or looking for employment (but not for stopping cocaine use). The remainder (57) participated in the usual MMT program.

MMT Works; Enhancements Unproductive

Methadone maintenance had a significant influence in reducing cocaine abuse; however, adding specialized therapy and incentives to the standard MMT regimen was not of benefit. In other words, treatment condition – enhanced vs. standard – *did not* make a significant difference. In the combined groups of patients, however, there was a significant decline in past-month average days of cocaine use from baseline at entry (15.2 days) to the 2-4 month followup point (6.5 days), and this persisted at 8-12 months (5.1 days; *see graph*).



Magura observes that the averages may be somewhat misleading, since many patients – 40% of all subjects – did become cocaine-abstinent. Interestingly, persons newly enrolled in MMT reduced their cocaine use more than patients already in treatment when the study started. Overall retention in the MMT clinics was

good, since 73% were still enrolled at one year.

The essential lesson from this study appears to be that MMT participation helps reduce continuing cocaine abuse, but it may be unproductive to layer-on more intensive program services for this purpose. Magura says that a better understanding is needed of what makes for effective cocaine abuse treatment.

No Dope Means No Coke

Magura believes that polydrug-abusing patients actively participating in MMT are helped both by the elimination or reduction of opioid use and a treatment environment that significantly deters other drug abuse. Heroin and cocaine are often used either to reinforce or modulate each other's actions; for instance, opioids may help regulate cocaine's stimulant effects. Moreover, he notes, patients often say, "No dope means no coke." That is, once heroin or other opioid use is eliminated, the need and desire for cocaine also is diminished.

In Magura's study, there were significant reductions in illicit opioid use in both groups during the 1-year period, with about two-thirds becoming opioid-abstinent (although these results are not reported in their article). It might be expected that adequate doses of methadone would help achieve abstinence from drugs in addition to illicit opioids. However, among their study subjects the average dose was 78 mg/day at 12 months and only a few were receiving more than 100 mg/day of methadone (120 mg/d maximum).

Adequate Methadone Necessary

Many patients continuing cocaine use might have been receiving suboptimal methadone doses. Tennant and Shannon have reported that cocaine seems to accelerate elimination of methadone, making ordinary doses inadequate for many patients.[4] At lower methadone doses of 30-80 mg/d, most patients in their study were chronically abusing cocaine. Even at 100 mg/d, about 72% of subjects had subtherapeutic methadone

Continued on Page 5

A critical objective of MMT is to provide adequate methadone first and then see what else might make a positive difference.

serum concentrations (<100 ng/mL). When methadone dose limits were raised to 160 mg/d there was greater cocaine abstinence.

Research on the effects of MMT often overlooks the importance of truly adequate methadone dose. Methadone serum levels are rarely measured and reported as part of the research designs; hence, the proportion of patients possibly under-medicated is unknown. Magura observes that requiring blood drawing is fairly difficult to do and research funding is often insufficient to allow for the extra effort and testing involved.

Still, patients receiving inadequate methadone doses may be spending a part of each day in uncomfortable opioid withdrawal, which might motivate them to use cocaine, or other drugs, to self-medicate those symptoms. It seems a critical objective of effective MMT would be to provide adequate methadone first and then see what else might make a constructive difference during treatment.

Magura concedes that, at this stage, there are no specific pharmacologic treatments for cocaine abuse and few behavioral-modification approaches that have demonstrated long-lasting efficacy. Nonetheless, research into these issues is continuing, although there are few incentives for MMT programs to institute the sort of evidence-based changes that might be appropriate.

Whether or not the ongoing MMT program accreditation process will accelerate further research initiatives and prompt necessary changes remains to be seen.

1. Leavitt SB. Coke confounds MMT: the cocaine conundrum. Available at: www.atforum.com (see under Current/Past Issues; Unpublished Articles).
2. Leavitt SB. Update: stimulant use disorders. 2000 (winter);9(1). Available at: www.atforum.com.
3. Magura S, Rosenblum A, Fong C, Villano C, Richman B. Treating cocaine-using methadone patients: predictors of outcomes in a psychosocial clinical trial. *J Subst Use Misuse*. 2002 (December); in press.
4. Tennant F, Shannon J. Cocaine abuse in methadone maintenance patients is associated with low serum methadone concentrations. *J Addict Dis*. 1995;14(1):67-74.

Where to Get Info...

Revised NIH Hepatitis C Statement

A Consensus Development Conference on *The Management of Hepatitis C*: 2002 was organized by the National Institutes of Health (NIH) last June to provide an update to a 1997 conference on the same topic. This independent, non-government, panel broke away from its 1997 predecessors by expanding the scope of patients eligible for HCV treatment to include those who use injected drugs, consume alcohol, suffer from comorbid psychiatric conditions such as depression, or who are coinfecting with HIV. Of importance, this latest guideline also acknowledges that anti-HCV therapies have been successful in patients receiving ongoing methadone maintenance treatment.

The full text of the panel's statement is available at <http://consensus.nih.gov> or by calling 1-888-NIH-CONSENSUS (1-888-644-2667).

World Travel Guide for MMT Patients Updated

Advice for travelers on methadone maintenance covers the world from A to Z: Afghanistan to Zimbabwe and nearly 200 countries in between. A project of INDRO e. V. in Germany, see <http://www.indro-online.de/travel.htm> or call +49 251-60123.

New NIDA Journal – Science & Practice Perspectives

A new journal available free from NIDA – *Science & Practice Perspectives* – promotes dialogue between researchers and providers in the drug abuse treatment field. Published twice a year, the exchange of information, observations, and insights is expected to help clinicians make the most of their programs and treatment outcomes.

In each issue, researchers provide up-to-the-minute reviews of the most critical topics in the science of addiction treatment. Top service providers offer perspectives on what works and can work in diverse treatment settings. For each article, there are roundtable discussions on the practical implications for both researchers and service providers.

For a free subscription to NIDA's *Science & Practice Perspectives*, send a request via fax: 240-632-0519; e-mail: nidapersectives@masimax.com; or via the Internet: <http://www.nida.nih.gov/perspectives/subscribe.html>.

ASAM Updates Classic Text

Soon to come off press, ASAM (American Society of Addiction Medicine) has completely updated and revised its massive compendium of knowledge for the field – *Principles of Addiction Medicine, 3rd Edition*.

At 1,400 pages, this new edition is even larger than before and it now includes 120 chapters of the latest evidence-based, and clinically relevant information. There more than 10,000 supporting references.

Starting with basic science and core concepts of addiction medicine, the chapters then progress from diagnosis and assessment to every imaginable aspect of treatment, including medical conditions associated with addiction, of relevance for physicians, nurses, therapists, counselors, social workers, and others. As a reference manual, the complete text is thoroughly indexed to easily target particular topics of interest or concern.

Every chapter has been either updated, rewritten, or is entirely new. Some sections, such as those on pharmacologic interventions, medical disorders and complications, and pain and addiction are significantly expanded. Keeping up with the latest treatment modalities, a new chapter on office-based opioid therapy (OBOT) has been added, and there are forward-looking discussions of such pharmacotherapies as buprenorphine and acamprosate.

Due to the timely nature of the data, undergoing revisions right up to press time, this hardcover tome that has served as the "bible" of addiction medicine for many in the field, reads like an all-encompassing state-of-the-art research journal. It is a "must have" volume for everyone's bookshelf – there is simply no other textbook like it.

Full citation: AW Graham, TK Schultz, M Mayo-Smith, RK Ries, eds. *Principles of Addiction Medicine, Third Edition*. Chevy Chase, MD: American Society of Addiction Medicine, Inc.; 2002 [ISBN No. 1-880425-08-4].

To order, call ASAM: 1-800-844-8948; or e-mail to: Email@asam.org. Final cost to be announced at press time (old edition was \$155 for nonmembers).

Special for AT Forum readers – when ordering, specify Code #ATForum for FREE shipping within the U.S. (a \$20 value).

Liver Disease in MMT Continued from Page 1

shadowing addiction in general and methadone in particular.

Invalid Concerns

A number of concerns have been expressed about liver transplantation in MMT patients, which are summarized in the *table*. These are either unlikely to occur or can be successfully addressed if they do occur. There is no scientific rationale to support why taking methadone should rule out potentially life-saving interventions for liver disease.[6]

Unsupported Concerns About Liver Transplantation in MMT Patients

- Complications due to methadone interactions with anesthesia or post-transplant drug regimens.
- Pain management in patients already maintained on an opioid, methadone.
- Nonadherence with medication regimens after transplant.
- Unwillingness to comply with necessary followup medical care.
- Return to illicit drug use negatively affecting outcomes.

A hallmark of effective MMT programs is the aggressive promotion of abstinence from all addictive substances, strict compliance with therapeutic regimens, frequent medical follow-up, and rehabilitation of social, psychological, and vocational functioning. Hence, MMT would be invaluable for preparing former illicit-drug abusers for transplantation and in helping to maximize favorable outcomes.

Available research has demonstrated that *prior* substance-use disorders are not medically sound reasons for exclusion from liver transplantation, and pretransplant abstinence requirements are poor predictors of clinical outcomes or abstinence after transplant.[7] However, Koch and Banys most recently commented that there is an implicit assumption that former substance abusers will relapse or become noncompliant with treatment, and these social value judgments once applied to the alcoholic population appear even more stringently and unfairly directed toward recovering illicit-drug users.[8]

They note that such reservations are ethically questionable and have no supporting evidence in the scientific literature.[8] In the case of MMT, available reports indicate that posttransplant outcomes and compliance in stable

methadone-maintained patients are at least comparable to the rest of the population, and these patients are no more likely to relapse to illicit-drug addiction than other formerly substance-dependent persons – usually much less so.

Favorable Evidence

To date, there have been only two published investigations of liver transplantation specifically in MMT patients. In a report from Albert Einstein Medical Center, Philadelphia,[9] 5 MMT patients underwent liver transplantation between March 1993 and May 1999, representing 2.7 percent of all liver transplants at the center during that time period. All patients were very ill prior to surgery and there were significant but manageable postoperative complications in 4 of them.

Overall, outcomes and long-term survival in the MMT patients were comparable to other patients, and none of them returned to illicit-drug or alcohol use after transplantation. The authors concluded that MMT patients with end-stage liver disease should be considered for transplantation and that “weaning completely off methadone should not be an essential requirement prior to consideration.”

In a larger study, Lau and colleagues described 34 MMT patients receiving liver transplants from 1989 to 1999 at Mount Sinai Medical Center, New York City.[10] The 1-year and 3-year survival rates (94% and 77%, respectively) were equivalent to all other liver transplant recipients at that institution. The authors concluded that continuing methadone maintenance did not complicate outcomes in any way.

In this study,[10] 4 methadone-maintained patients (about 12%) resumed illicit-drug injecting after transplant; however, according to Lawrence Liu, MD (Liver Fellow, Mount Sinai Medical Center) post-transplant drug use actually involved isolated and limited events, rather than serious relapse. Also, this 12% drug-use rate – often labeled “recidivism” – is lower than for recovering drug- or alcohol-dependent transplant recipients not in MMT.[11,12]

There is a question as to whether transplanted MMT patients were receiving adequate methadone doses. In the Mount Sinai cases, presurgical doses ranged from 5 to 100 mg/day (median 60 mg/d). Liu comments that dosing was controlled solely by the respective MMT programs rather than the transplant team, and he believes there might be a false perception that lower methadone doses are more favorable for transplantation. He recalls that, for no apparent reason, one patient had his dose reduced from 70 mg/day at the time of

transplant evaluation to 5 mg/day by the day of surgery.

Similarly, Kenneth Rothstein, MD, Associate Director of the Center for Liver Disease at Albert Einstein and a coauthor of the case series report, notes that methadone dosing – averaging only 29 mg/day – was managed entirely by the respective MMT programs. Patients’ doses might have been decreased, thinking it would better qualify them as transplant candidates. The fact that none of the patients in this report [9] relapsed to illicit-drug use might attest more to the efficacy of MMT as a supportive addiction treatment environment than to the adequacy or necessity of lower methadone doses.

Unnecessary Apprehension

As for the other concerns noted in the *table*, any apprehension regarding MMT patients seems unnecessary. Koch and Banys noted in their survey[4] that post-transplant difficulties with medication adherence (compliance) or followup care was reported by only 15% of centers experienced with MMT patients, and these were of minor significance that did not affect transplantation outcomes. In general, noncompliance to some extent may be exhibited by up to 20% of all posttransplant recipients, including missed clinic visits, forgotten drug doses, reducing drug doses, or even stopping one or more medications.[13]

Furthermore, interactions between posttransplant medications and methadone have not been documented in the literature. In the Koch and Banys survey,[4] none of the liver transplant centers reported immunosuppressant-drug interactions with methadone. Liu concurs that no adjustments due to methadone have been required to the standard posttransplant drug regimen at Mount Sinai.

Transplant teams unfamiliar with MMT have been concerned about managing pain in patients already taking an opioid drug (methadone). The Koch and Banys survey found that only three programs (8%) experienced any difficulties with postoperative pain management in MMT patients.[4] Rothstein observes that, in their case series, only 1 of 5 MMT patients receiving transplant required an opioid analgesic for postoperative pain; the others were managed with standard pain medications, just as all other patients. Similarly, Liu says that pain management in their MMT patients has followed usual procedures without problems.

Continued on Page 7

Methadone Accepted

Liu asserts that Mount Sinai continues to consider MMT patients for liver transplantation. As of last June (2002), there were 32 methadone-maintained patients on their waiting list, and they perform liver transplants in 4 to 5 such patients each year.

He further notes that, of 36 methadone-maintained liver recipients on whom they now have from 1 to 12 years of followup data, survival has been 75%, compared with typical 5-year survival of 70%. Mortality has been largely associated with recurrent HCV infection and rapid progression to cirrhosis.

Edwin Salsitz, MD, Director of Methadone Medical Maintenance (MMM) at Beth Israel Medical Center, New York, says that several of his HCV-positive patients have received liver transplants at Mount Sinai Medical Center, while others were transplanted at NYU Medical Center and one at the University of Pittsburgh.

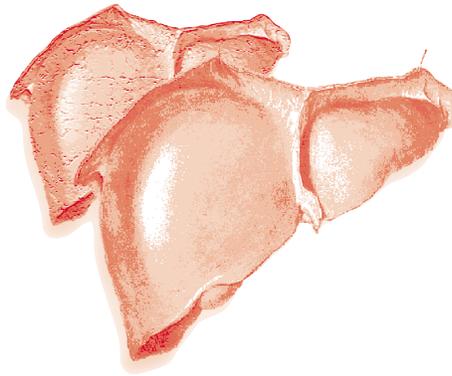
In all, 7 of Salsitz's patients have received liver transplants and 3 were able to return to work full time. He notes that none of them encountered resistance in getting listed due to their being on methadone; however, these were long-term patients, stabilized on methadone, and with strong family and financial support.

He concedes that patients with less tenure in MMT and without such adequate support might face challenges in finding a transplant center willing to consider them. The assistance and encouragement of MMT staff can be important in overcoming any hurdles.

Better Communication Needed

To a considerable extent, there appears to be a disconnect between addiction treatment providers and the liver transplantation field. Transplant teams would benefit from a better understanding of substance dependency and the stages of addiction recovery, particularly relating to MMT. Similarly, MMT staff need to become familiar with the liver transplantation process.

Appropriate patient referrals from MMT program staff to liver transplant centers will be essential for serving the interests of patients and the respective institutions. According to Rothstein, the very small proportion of liver transplants in MMT patients at Albert Einstein was not due to any reluctance by the transplant team to consider such patients. He believes that MMT staff and referring physicians may presume that patients continuing on



methadone will be automatically rejected as candidates, and he hopes to convince them otherwise in the future.

Similarly, Liu, at Mount Sinai Medical Center, expressed an interest in closer contact with patients' MMT programs. Currently, there is communication by transplant coordinators only if the referring physician is at the respective MMT clinic, which usually is not the case.

Critical Concepts

In sum, according to current evidence, methadone-maintained patients appear to be suitable candidates for liver transplantation, just as any other persons in need. MMT patients should not be expected to withdraw from methadone or reduce their dose, as this places them at high risk for illicit-drug relapse, which would disqualify them for transplant candidacy.[15,16]

Patients also should be actively participating in counseling and ongoing recovery efforts.[17] MMT patients should exhibit relatively stable psychosocial functioning and an ability to comply with their medical care, as would be expected of any patients.[18]

Additional critical concepts may be summarized:

- Considering the burden of deteriorating liver disease in large numbers of MMT patients, this population appears to be grossly underrepresented among persons eligible for and receiving liver transplants.
- Methadone does not appear to be contraindicated on the basis of harmful effects on graft function or patient survival, drug interactions, or requirements for postoperative analgesia.
- Via their active participation in an ongoing recovery program, stable MMT patients may exhibit greater adherence to treatment regimens and followup routines, and lower rates of recidivism, if any, than recovering alcoholics or formerly opioid-addicted persons not in MMT.

- A critical factor is maintaining adequate methadone serum levels both pre- and posttransplant to avert illicit-drug use.
- Long-term posttransplant outcomes in MMT patients have been as favorable as in other patient populations.

Finally, in response to the patient's plea for suggestions at the beginning of this article, the best advice might be to start looking. There are enlightened liver transplant centers that will consider him. Hopefully, their ranks will be increasing.

1. Leavitt S. Critical Concerns. *Addiction Treatment Forum*. Fall 2001;10(4). Available online at: www.atforum.com.
2. Peck P. Liver transplant: no methadone users need apply, please. *WebMD Health* [online serial]. February 27, 2001. Available at: <http://my.webmd.com/content/article/1728.73678>.
3. Kinross I. Methadone clients denied life-saving liver transplants. *J Addict Mental Health*. 2001 (March/April).
4. Koch M, Banys P. Liver transplantation and opioid dependence. *JAMA*. 2001;285(8):1056-1058.
5. Awad J A, Chin B. Survey of methadone maintenance policies of US liver transplant centers. *Hepatology*. 2000;32(4 Pt. 2):246A. Abstract 338.
6. Stephenson J. Former addicts face barriers to treatment for HCV. *JAMA*. 2001;285(8):1003-1005.
7. Beresford TP, Everson GT. Liver transplantation for alcoholic liver disease: bias, beliefs, 6-month rule, and relapse – but where are the data? *Liver Transpl*. 2000;6(6):777-778.
8. Koch M, Banys P. Methadone is a medication, not an addiction [editorial]. *J Liver Transpl*. 2002; in press.
9. Kanchana TP, Kaul V, Rothstein KD, Manzarbeitia C, Reich DJ, Munoz SJ. Is liver transplantation appropriate in patients on methadone maintenance? *Liver Transpl*. 2002; in press. [Previously published as an abstract: Rothstein K et al. *Hepatology*. 2000;32(4 Pt. 2):245A.]
10. Lau N, Schiano T, O'Rourke M, et al. Survival and recidivism risk in methadone-dependent patients undergoing liver transplantation. *Hepatology*. 2000;32(4 Pt. 2):245A. [Abstract 337]
11. Effective Medical Treatment of Opiate Addiction. NIH Consensus Statement. Bethesda, MD: National Institutes of Health; 1997(Nov 17-19);15(6):1-38. (See also: *JAMA*. 1998;280:1936-1943.)
12. Lucey MB, Carr K, Beresford TP, et al. Alcohol use after liver transplantation in alcoholics: a clinical cohort follow-up study. *Hepatology*. 1997;25:1223-1227.
13. Gaston R. Graft loss and its relation to non-compliance. Presentation at: First International Symposium on Transplant Recipient Compliance; April 3, 1998; Arlington, VA.
14. Leavitt S. Methadone and the immune system. *Addiction Treatment Forum*. Spring 2002;11(2). Available online at: www.atforum.com.
15. ASAM (American Society of Addiction Medicine). Policy Statement on Methadone Treatment. Chevy Chase, MD: ASAM; 1991. Available at: <http://www.asam.org>. Accessed April 29, 2002.
16. Joseph H, Stancliff S, Langrod J. Methadone maintenance treatment (MMT): a review of historical and clinical issues. *Mt Sinai J Med*. 2000;67(5-6):347-364.
17. Stowe J, Kotz M. Addiction medicine in organ transplantation. *Prog Transplant* 2001;11(1):50-57.
18. Crone CC. Transplanting patients on methadone maintenance therapy? *Medscape* [serial online]. December 7, 2000. Available at: <http://www.medscape.com>. Accessed August 29, 2001.

Survey Results - 9/11 Disaster Aftermath

In the Winter 2002 edition of *AT Forum* (Vol. 11, No. 1), readers were asked to comment on how the tragic events of September 11, 2001 might have affected their methadone maintenance treatment clinics. Survey questions solicited "yes," "no," or "don't know" responses to the following questions:

1. Did your MMT clinic revise its disaster preparedness plans?
2. Was there an increased demand for treatment services?
3. Were there higher rates of drug relapse among MMT patients?

Approximately 130 persons responded to each question via feedback cards and at the *AT Forum* web site (www.atforum.com). The *graph* depicts a summary of responses.

Affirmative "yes" answers, hovering around 30% across the three questions, suggest that there was a significant increase in drug relapses and needs for treatment services in MMT clinics. And, many clinics revised their disaster plans or operations in some fashion.

One patient observed that security was greatly tightened at his clinic (e.g., backpacks and purses examined), and patients were issued special identification cards that would be honored at other MMT clinics in the area in an emergency.

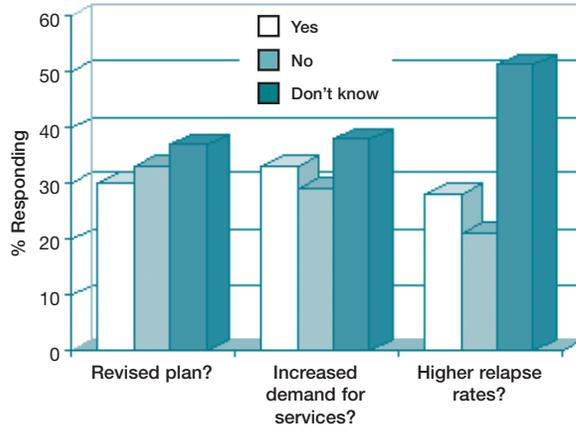
Shock or Complacency?

The relatively small number of persons responding to the survey, and large proportions of "don't know" answers, are of concern. Does this indicate a high degree of apathy or unawareness, or both?

Perhaps, MMT clinics around the country were still in shock from the events. Or, maybe readers were somewhat complacent in view of the very capable response to the 9/11 crisis by MMT clinics and staff in the New York area, as described in the *AT Forum* article accompanying the survey questions.

Resources Available

Advance disaster planning is essential for MMT clinics as part of the accreditation process. Accreditation surveyors assess how an organization develops and improves its emergency management plan; how that plan applies to a variety of possible events; and how staff members at all levels are trained in their roles and responsibilities.



For clinics needing further guidance in developing disaster response plans, or just looking for new ideas, there are resources readily available on the Internet.

JCAHO devoted the December 2001 edition of its publication, *Perspectives*, to healthcare preparedness for emergencies. This is available for download free at: <http://www.jcrinc.com/subscribers/perspectives.asp?durki=1122&site=10&return=1627>.

Another resource – *Training Manual for Mental Health and Human Service Workers in Major Disasters* – is available from SAMHSA at: <http://www.mentalhealth.org/publications/allpubs/ADM90-538/default.asp>. Or, by calling 1-800-789-2657.

Although neither publication is specific to MMT programs, the information is relevant and can be easily adapted. A good disaster plan is like health insurance for any clinic's operations. It is hoped that it will never be needed; but gratefully appreciated and essential in the event that it is.

A.T.F.

ADDICTION TREATMENT

Forum

is published quarterly by:

Addiction Treatment Forum
P.O. Box 685
Mundelein, IL 60060
Phone/Fax: 847-392-3937

Editor: Stewart B. Leavitt, Ph.D.

Art Director: Julia Kim

© 2002 Clinco Communications, Inc.

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.

PRESORTED
STANDARD
U.S. POSTAGE
PAID
Arlington Heights, IL
Permit # 896