

Forum

THE QUARTERLY NEWSLETTER FOR CLINICAL HEALTH CARE PROFESSIONALS ON ADDICTION TREATMENT

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There is an urgent need for science to outweigh stigma, prejudice, and misunderstanding.

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Clinical Concepts

The Methadone Dose Debate Continues

Medical practitioners rarely deny patients adequate medication for their disorders. Yet, this has not always been the case with methadone maintenance treatment (MMT).

Some MMT patients have had their methadone doses taken away or reduced as punishment for disobeying instructions.. Perhaps worse, many patients have been *under*medicated with methadone and then personally blamed for not avoiding illicit drugs and/or remaining in treatment.

Should such practices be allowed to continue?

Basic Observations

A common theme in *Addiction Treatment Forum* is the urgent need for science to outweigh stigma, prejudice, and misunderstanding. And, the scientific advantages of MMT, discovered more than 35 years ago, are straightforward.

A large number of research studies have demonstrated that *adequate* doses of oral methadone ward off withdrawal symptoms and relieve opioid cravings for 24 hours or more, without making the person feel "high" or drugged. Unfortunately, even after all this time, what constitutes an "adequate" dose of this medication is still being debated by practitioners, patients, researchers, and regulators.

During the past several years, this topic has been discussed by a series of articles in *A.T. Forum* [1-8] and other sources.[9] Research, spanning many years, has consistently and unquestionably demonstrated the following:

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Practice Pointers

Getting Alcohol Under Control in MMT

To the extent that methadone maintenance treatment (MMT) successfully reduces or eliminates patients' use of illicit opioids, it also curbs abuse of other addictive substances. However, alcohol has been an exception to this.

Although alcohol abuse has been noted anecdotally as a frequent problem plaguing MMT programs, few specific data are available on the extent of the problem. One study found that about 32% of MMT patients had drinking problems, and these persons also tended to abuse benzodiazepines.[1] Furthermore, some studies comparing heavy alcohol use (5 or more drinks/day) before admission and after one year in MMT have reported little improvement.

In one investigation, 28% were heavy drinkers before entry into MMT and 26% remained so at followup [2]; another study reported a slight increase of heavy-drinking among patients, from 15% to 16%.[3] Yet, the most recent research suggests that even short-term MMT can significantly reduce alcohol consumption in patients who are *not* full-blown alcoholics.[4]

It has long been believed that opioid abuse and alcoholism develop independently of each other, but which comes first is debatable. Heavy alcohol abuse beginning prior to heroin use has been reported in from 50% [5] to 68% [6] of patients entering MMT. However, in one study, 29% of patients first began abusing alcohol *after* entering MMT.[6]

The mechanisms of why opioid addiction and alcohol abuse might go together are poorly defined, and only a few studies have considered the influence

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Events to Note

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

April 2003

AATOD 2003 Conference
April 13-16, 2003
Washington, DC
Contact: 856-423-7222 x360;
aatod@talley.com

May 2003

ASAM 34th Annual Conference
May 1-4, 2003
Toronto, Ontario, Canada
Contact: 301-656-3920; www.asam.org

IAPSRS (Int. Assn. for Psychosocial
Rehab. Services) 28th Annual Conference
May 5-9, 2003
Atlanta, Georgia
Contact: 410-789-7054;
trudimurray@iapsrs.org

NAATP (Natl. Assn. of Addict. Treatment
Providers) 2003 Annual Conference
May 17-20, 2003
Indian Wells, California
Contact: 717-392-8480; www.naatp.org

American Psychological Society - 15th
Annual Conference
May 28 - June 1, 2003
Atlanta, Georgia
Contact: 202-783-2077

June 2003

New England School of Addiction Stud-
ies
June 9-13, 2003
Bristol, Rhode Island
Contact: 207-621-2549; neias@neias.org

CPDD (College on Problems of Drug
Dependence) 64th Annual Meeting
June 14-19, 2003
Bal Harbour, Florida
Contact: 1-800-759-5800;
www.sailairtravel.com

UPCOMING 2003...

NAADC (Natl. Assoc. Alcoholism &
Drug Abuse Counselors) Conference
September 14-17, 2003
Washington, DC
Contact: 800-548-0497; naadac.org

ASAM State of the Art in Addiction
Medicine Conference
October 30 - November 1, 2003
Washington, DC
Contact: 301-656-3920; www.asam.org

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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

New Opportunities Ahead

Evidence-Based Practices

The Substance Abuse and Mental Health Services Administration (SAMHSA) recently announced it is making \$2.2 million in state grants available to provide training and continuing education to mental health service providers and others who are implementing evidence-based practices. We assume this would include methadone maintenance treatment (MMT) programs

Such support from the federal government is commendable. As a first step, concerned treatment providers will need to know how to understand and evaluate the quality of evidence coming from research studies. Unfortunately, there is a great deal of "evidence" in the field that is of limited value for guiding clinical decisions.

Treatment providers also must learn how to gather their own data, interpret it, and put it to best use. Roughly two million dollars amounts to only seed money for accomplishing such a major endeavor nationwide.

Integrating evidence-based practices in MMT programs has become a major focus of *Addiction Treatment Forum*, and is the theme of this spring's AATOD (American Assoc. for the Treatment of Opioid Dependence) Conference in Washington, DC. If you are going to AATOD, be certain to attend the *A.T. Forum* workshop titled, "Can Addiction Research Be Trusted?" (Session C5; Tuesday, April 15, 2003; 10:30 AM). We will be providing extensive learning materials to help in evaluating research.

MMT Patients "Graying"?

As the "Current Comments" feature in this edition observes, the age 50+ population in MMT programs appears to be the most rapidly growing segment. Yet, there have been virtually no research investigations or conferences addressing the very special concerns and needs of these patients.

For example, as MMT clinician Peter L. Tenore, MD, told us, adequate methadone dosing is essential in older persons to avoid complications of physical or mental disorders. Angina, hypertension, diabetes, and psychiatric illness can be worsened by even low-level opioid withdrawal. On the other hand, women in MMT going through menopause may think they are suffering symptoms of opioid withdrawal when that may not be the

case. More details are provided in our article.

Of course, an important question is whether our limited data accurately reflect national aging trends or merely isolated pockets of older patients in select programs. You can help by providing age data from your own clinic via our special e-survey (*see the box on page 5*).

Your responses can be critical for helping to determine the need for future research and, perhaps, a national conference focusing on the "graying of methadone."

Methadone Dose Survey - Final Call

To gather the greatest response possible, we are repeating our methadone dose survey in this issue, and will begin reporting results in our spring edition. So, if you haven't already done so, *please respond to the following questions*:

1. The **Highest** typical daily methadone dose at my clinic is ___ mg/d.
2. The **Lowest** typical daily methadone dose is ___ mg/d.
3. The **Average** typical daily methadone dose is ___ mg/d.
4. What percent of patients at your clinic are receiving the following methadone doses: <60 mg/d ___%; 61-80 mg/d ___%; 81-100 mg/d ___%; 101-200 mg/d ___%; >200 mg/d ___%.
5. We operate on a for profit, non-profit basis (check one).
6. My clinic is located in the state of: _____.

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

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A.T.F.

Clinical Concepts

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- patients receiving *inadequate* methadone doses will continue to use heroin, alcohol, and other addictive substances;
- these patients will not be responsive to behavioral therapies or remain in MMT for extended lengths of time;
- conversely, when methadone doses are raised to individually-determined *adequate* levels, patients vastly improve on all measures of treatment success.

Given these basic observations, why would there be continuing debate about methadone dosing policies and practices?

Individual Differences

Methadone prescribing practices have followed philosophical, moral, or psychological rationales, rather than available scientific evidence.[9] The stigma, prejudices, and controversies surrounding MMT seem to have diverted attention from the fact that it is nothing more than a medicine, following well-established principles of pharmacology such as noted in *Goodman & Gilman's; The Pharmacological Basis of Therapeutics*, a classic text on the subject:

"Optimal treatment will result only when the physician is aware of the sources of variation in response to drugs and when the dosage regimen is designed on the basis of the best available data about the diagnosis, severity and stage of the disease, presence of concurrent disease or drug treatment, and predefined goals of acceptable efficacy and limits of acceptable toxicity. If objectively assessable expectations of drug therapy are not set before therapy is initiated, therapy is likely to be ineffective..."[10]

Individuals differ in how any drug affects them. Absorption, digestion, and excretion of a drug may account for half or more of the differences in how people eventually respond to the therapy. There are many factors that can influence the potency and effect of oral methadone, as with any drug, and some of these are listed in the *table*.[11,12]

Given the many factors potentially affecting individual response to methadone, research suggests that there can be a 17-fold difference between individual patients. That is, whereas 60 mg/d may be adequate for one patient, another individual might require more than 1000 mg/d for optimum effect. The notion of a particular dose range, or upward limit on dose, being suitable for *all* patients is scientifically implausible.

Arbitrary Limitations

The first patients treated during the

Factors Affecting Response to Methadone

Sex, age, race	Physical disorders, disease, or infection
Body weight, size	GI, liver, renal function
Alcohol and tobacco use	Pregnancy, menopause
Illicit drug use	Stress
Prescribed and OTC medications or vitamins	Psychiatric illness
Herbal/alternative products	Genetic variations in metabolic enzymes
Diet and nutritional state	

Adapted from 11,12

early 1960s required 150 to 180 mg of daily oral methadone to avert abstinence syndrome and achieve normal functionality. By 1968, more than 1000 patients had been treated and daily methadone doses averaging between 80 mg and 120 mg appeared to be optimum for most patients, although some required more or less than that amount.[5] It should be noted, however, that heroin was less potent and more costly in those days than it is today; consequently, opioid dependence was likely less severe in those early patients.

During the 1970s, regulatory constraints and stigmatization of MMT led to dosing practices that had no basis in science.[5] A methadone dose ceiling of 100 mg/d was imposed, without any justification from research data, and exceptions to that required special permission from regulatory agencies. In an apparent overreaction to regulations, by the early 1980s, more than 40% of MMT patients were administered maintenance doses less than 40 mg/d. Even the most recent survey in year 2000 showed that 13% were still receiving less than 40 mg/d and more than a third of patients were receiving less than 60 mg/d.[13]

Although average methadone dose levels slowly moved upward during the 1990s, the latest data from 2000 indicate that only about a third of MMT patients receive doses at or above the 80 mg/d lower threshold established by Dole and his colleagues in the 1960s.[13] However, it is unknown how many receive greater than 100 mg/d and the upcoming *A.T. Forum* dosing survey results may shed light on this (*see the feedback card in this issue or visit www.atforum.com to respond*).

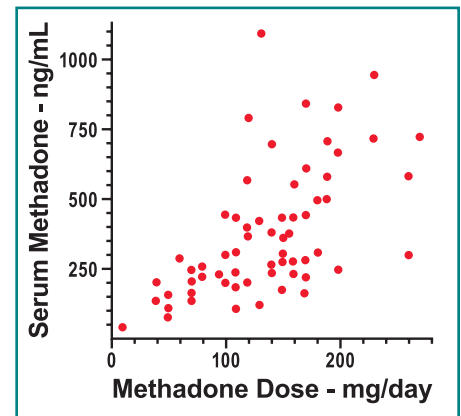
The Value of SMLs

Appropriate concentrations of medications in blood serum are critical for therapeutic success and patient safety. However, the limited research testing serum methadone levels (SMLs) demonstrates that there is no way of prescribing a single best dose to achieve an optimal SML as a "gold standard" for all patients.

Methadone serum level is usually described in nanograms per milliliter (ng/mL) and available evidence suggests

that a trough SML (at the low point just prior to the next methadone dose) of about 400 ng/mL blocks effects of heroin and prevents opioid withdrawal or drug craving. However, some patients may require higher SMLs for stabilization.

Due to individual differences, the methadone dose to achieve an optimal serum level can vary quite widely across patients,[2] and recent data illustrate this (*see figure*).[14] In an examination of 69 MMT patients with methadone doses ranging from 10 to 270 mg/d (mean 134 mg/d), there was a positive relationship between dose and trough SML. However, at each methadone dose there were patients with widely differing serum concentrations, including one SML measurement greater than 1000 ng/mL. So, it would be improper to conclude that a particular dose "causes" a specific methadone serum concentration; other factors might be more important in many patients.



Many patients may have inadequate SMLs despite what some might consider "high" daily methadone doses. For example, the *figure* shows that many patients even at doses well above 100 mg/d had relatively low (subtherapeutic) SMLs [14] and past research has found this can negatively affect performance in MMT programs.[9]

Measuring methadone serum levels may be most useful for analyzing cases of seemingly sufficient doses of methadone that are still not benefitting a patient. If, for example, a patient prescribed 150 mg/d is still complaining of the dose "not holding," a blood test might reveal a trough SML of only 100 ng/mL, which should indicate to both the practitioner and patient that a *dose increase* is appropriate and necessary.

New Research Directions

Clinical trials over the years have compared and contrasted differing methadone doses. Earlier trials had serious limitations in their methods and the range of doses examined.[4]

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The Further “Graying of Methadone”

At a time when a younger generation of opioid-dependent persons is first entering methadone maintenance treatment (MMT) – in some cases due to opioid-analgesic abuse – there also appears to be a rapidly aging MMT-patient population at the other end of the spectrum. This is largely due to the success of MMT programs in retaining patients in treatment and helping to prolong their lives.

However, there have been virtually no research studies or conferences addressing the specific problems and needs of MMT patients aged 50 or greater. Consequently, there are still many unresolved questions about the “graying of methadone.”

Dramatic Trends

Addiction Treatment Forum first described concerns about a “graying” population in methadone programs in Fall 1995 (Vol. 4, No. 3), with a followup in Winter 1996 (Vol. 5, No. 1). *Elizabeth Khuri*, MD (Weill Cornell Medical Center, New York), interviewed in the original article, recently observed that not much has changed, although some clinics have become more sensitive to the issues as a result of the *A.T. Forum* article.

Also in 1995, it was noted that patients aged 50 and older comprised 16% of the population in a large MMT program at Beth Israel Healthcare System, New York City. Current data provided by *Addie Corradi*, Administrative Director, indicate dramatic trends from 1975 through 2002 (see *Graph*).

Remarkably, the proportion of patients aged 50 or greater significantly increased during the 27-year period to comprise more than a third (35.3%) of Beth Israel’s 6,116 patients last year. Nearly 6.5% were 60 or older. During that same time, the proportion of patients 39 and under steadily declined.

Similarly, *Peter L. Tenore*, MD – Medical Director, Trailer-1 [MMT] Unit, Albert Einstein College of Medicine, New York City – estimates that at least 40% of his 400 MMT patients are above age 50, with 7.5% (30) in their late 60s or older.

Clearly, this scenario depicts an aging MMT population worthy of special attention. Although, there may be a question as to whether these two programs are typical of the whole country (see *Sidebox on next page*).

Multitude of Obstacles

Aging is more than simply “getting old.” It is a process involving biological, social, emotional, and often financial changes affecting a person’s health. MMT patients would not be exceptions to this.

All practitioners interviewed for this article agreed that the older patients tend to have long tenures in MMT, sometimes 20 years or more, are interested in their care, and are among the most cooperative and stable patients. However, rules, regulations, and stigma surrounding methadone may sometimes conspire against them.

New Federal regulations released in 2001 require only two

years of stable MMT for a person to be eligible for a 31-day supply of take-home methadone. This means a great many older patients with long tenures in treatment should be eligible; however, many States have more rigid requirements for such privileges. Corradi adds that there also is often the tricky question of whether retired persons would be eligible for extended take-homes since they are not considered engaged in productive activity.

Khuri believes that older patients, if they are doing well, should be allowed fewer clinic visits, leading to or including medical maintenance whereby office-based physicians maintaining associations with MMT programs care for patients. One of the largest and long-standing medical maintenance programs is managed by *Edwin Salsitz*, MD at Beth Israel.

Salsitz’s MMT patients visit his office only once-monthly to have their health status checked and get a month’s supply of methadone. He agrees with Khuri that this is the best approach for long-term, stable MMT patients. Yet, some of his older, retired, patients would love to travel or relocate during winter months to warmer climates and cannot do so without starting over at an out-of-state MMT clinic (and losing their take-home dose privileges).

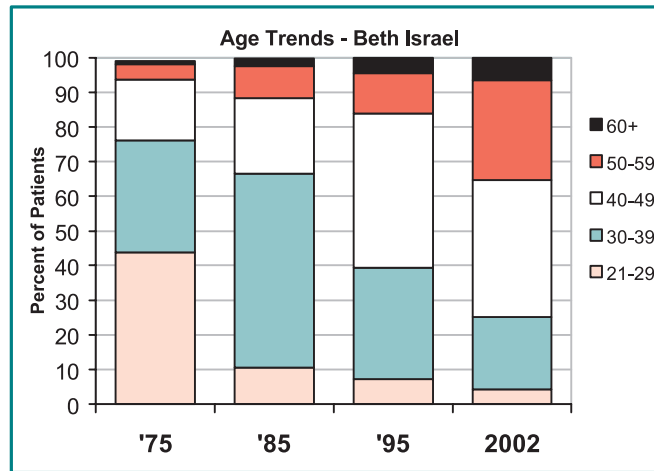
However, there also is a potential complication of extended take-home methadone for certain older patients. *Randy Seewald*, MD, MMT Medical Director at Beth Israel, notes that some persons may have difficulties handling a large supply of methadone due to cognitive changes associated with aging (eg, dementia), along with the frequent need to manage many medications for different ailments. Caregiver support at home can be a critical requirement.

Furthermore, Tenore adds that coming to the clinic more than monthly can be of benefit for some older persons. It allows for monitoring of their physical health and other needs on a regular basis.

He concedes that travel to/from the MMT clinic may pose challenges for some older persons, especially those who are physically impaired. “For those persons,” Tenore says, “our staff can arrange special transportation.” However, Smith observes that, once patients get to the clinic, the building may lack easy access for persons with special physical needs and there is no specific funding available to make necessary improvements to facilities.

As a final challenge, which faces the very oldest patients requiring intensive care, receiving methadone in nursing homes can be a problem, according to *Barbara Smith*, RN, MMT nursing supervisor at Beth Israel. Many nursing homes are not equipped to handle methadone and some are reluctant to care for former opioid addicts.

This is a stigma that carries-over even to the oldest patients who are many years removed from their prior drug-abusing lives. Corradi adds that community-based primary care providers also misunderstand MMT, with many believing that older persons



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who have avoided illicit opioids for a long time should no longer need methadone.

Medical Considerations

From a strictly medical perspective, Tenore says that older MMT patients should be treated with standard medical protocols for their age, just as any other persons, and methadone dose adjustments are not automatically necessary due to aging. However, both he and Salsitz note that dose adjustments could be needed in patients taking medications known to interact with methadone, such as certain antiviral medications, carbamazepine, Dilantin, and others.

Both clinicians also have observed that women going through menopause often request methadone dose increases. Tenore has found that perimenopausal symptoms – such as, hot flashes or chills, fatigue, aches and pains – often mimic opioid withdrawal, and staff (as well as patients) need to be aware of this possibility. Increasing methadone dose may not be a complete solution. In some cases, hormonal replacement therapy (HRT) can be of value, if deemed appropriate and safe. Tenore also has prescribed clonidine, which temporarily may help alleviate uncomfortable symptoms just as it does during actual opioid withdrawal.

Many patient factors need to be taken into account besides age, including: physical condition, stress, and socioeconomic status. “However, the same could be said about any medical patient,” Tenore emphasizes, “and methadone should be considered as just another medicine for their continued well-being, without undue restrictions.”

National Conference Needed?

The issues above are just some of the concerns facing the growing numbers of older persons in MMT programs. Corradi, for one, would welcome efforts to address these issues on a nationwide scale. “If nothing else,” she says, “we need to increase awareness, to begin developing resources for delivering the special services that this population requires, and to train staff.

Should there be a national conference to jump-start this endeavor? “If trends in other parts of the country are similar to our own experience, there would certainly be a benefit in that,” Corradi concludes.

A.T.F.

U.S. MMT AGE TRENDS? Respond to E-Survey

Do the MMT programs at Beth Israel and Albert Einstein represent typical aging trends around the country?

Data provided by the New York State Office of Alcoholism & Substance Abuse Services (OASAS) portray a somewhat different picture. With approximately 45,000 patients statewide, NY represents about a quarter of all persons in U.S. MMT programs.

According to OASAS, at the end of 2001, only 6.6% of ongoing MMT patients in NY programs were aged 55+ and only 2.4% were 60 or older. Although data for the 50 to 55 age group were unavailable, the OASAS percentages generally indicate age-group percentages that are very much lower than for Beth Israel or Albert Einstein.

According to *John Perez*, OASAS Director for Methadone Planning & Policy, the statewide data include a variety of programs, from smaller, newer clinics to much larger operations. He believes that longer-established and larger programs, such as at Beth Israel, would be more likely to have a greater proportion of older patients with long tenures in MMT.

However, there also may be many other MMT programs around the country with large numbers of older patients. Further data are needed to assess the situation for planning purposes.

To help better determine age trends in MMT programs, A.T. Forum would like to compile the following data from MMT clinics around the U.S.

What percentage of your patients fall into the following age brackets:

___% under 21; ___% 21-29; ___% 30-39; ___% 40-49; ___% 50-59;
___% 60 and above.

What is your total number of MMT patients? _____.

How long has your MMT program been in operation? ___ years.

Please indicate city, state in which you are located: _____.

Please respond with your data by faxing this page to: 847-392-3937; or by e-mail: to feedback@atforum.com; or by going to the online survey at: <http://www.atforum.com> (see button on home page).

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of methadone dose on alcohol consumption. Research in animals found that low doses of opioids increased alcohol drinking, whereas higher opioid doses decreased the behavior.[7] Similarly, a recent study in humans found a strong association between inadequate methadone doses and increased cravings for both heroin and alcohol.[8] An earlier investigation noted that continued drinking among alcoholic patients was associated with smaller increases in methadone doses while they were in MMT.[9]

It appears that providing individually adequate methadone dosing during MMT can help control alcohol consumption, as it does for other addictive substances. However, alcohol abuse is a complex disorder and there may be concerns about providing an opioid medication, like methadone, for persons also consuming alcohol.

For a current clinical perspective on alcohol problems in MMT programs, and their management, Addiction Treatment Forum consulted Ernie Vasti, MD, who is

Medical Director for Substance Abuse of San Joaquin County, California.

A.T. FORUM: Is alcohol merely a nuisance during methadone maintenance, or should any and all use of this addictive substance be taken seriously?

VASTI: Concerns about alcohol abuse among MMT patients have been ongoing for quite some time. It can be a serious problem from liability, patient stability on methadone, and patient health perspectives.

However, despite decades of research to the contrary, alcohol has not been taken seriously enough. This needs to change, since I would estimate that a third or more of persons entering or in MMT programs today are consuming alcohol on a regular basis, with many being alcoholic.

ATF: That number is also consistent with our recent survey [see page 8]. What are your current thoughts about dealing with the problem?

VASTI: Previously, solutions were simple and rather severe. If patients tested positive for alcohol at the methadone dos-

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ing window, they were denied methadone that day. I've become interested in a more patient-centered and treatment-oriented approach to the alcohol problem.

Interventions can be successful and retention in MMT is important for achieving better outcomes when it comes to alcohol. Also, it's important to identify any alcohol use or abuse problems as early as possible.

We use patient-assessment questionnaires, such as the ASI [Addiction Severity Index], to identify problem areas and these then become part of the person's treatment plan. It should not come as a surprise at a later time that a patient might have had an alcohol problem in addition to opioid dependence.

Physician history-taking at entry to MMT should also probe for alcohol problems. For example, the well-known CAGE, MAST, or AUDIT questions are easy to use with any patient to help identify alcohol-related difficulties. Immediate and brief interventions can then be important for getting started in helping the patient.

ATF: Should 100% abstinence from all non-prescribed substances, including alcohol, be a primary goal of MMT?

VASTI: Drug misuse is only part of the problem and all aspects of the patient's life must be taken into account, which the ASI helps to identify. A person can make improvements in many life areas during recovery and, possibly, complete drug and alcohol abstinence might be part of the plan; but it's not a singular end in itself.

If the focus is solely on substance use, important issues motivating that behavior might be neglected or intervention opportunities overlooked. We need to establish trust with patients and ask relevant questions. Then, it's a matter of listening carefully to them so we can discover what's wrong.

ATF: Is it critical for the patient to receive adequate methadone doses?

VASTI: It appears that adequate methadone can, indeed, help decrease alcohol use. Yet, it can be difficult to reach a stable and adequate methadone dose in patients who continue to abuse alcohol, or who may stay away from the clinic to avoid confrontations when they've been using alcohol.

There is also a medicolegal question. Is it appropriate to provide methadone – a strong opioid drug – to someone who has ingested alcohol? If so, what are the limits of allowable alcohol?

Methadone and acute alcohol intoxication can have additive effects, causing increased methadone blood levels, and the patient may experience severe sedation or even serious respiratory distress in extreme cases. On the other hand, chronic alcohol abuse might energize enzymes that metabolize methadone, causing it to be digested more rapidly and decreasing methadone's effectiveness.

ATF: What can clinics do?

VASTI: It's difficult to know what a safe dose of methadone might be in a person who has imbibed alcohol. Especially, if the quantity of alcohol is unknown.

Some MMT clinics have a zero-tolerance policy – if alcohol is present, no methadone is given. Others have a sliding scale to determine what percent of the patient's normal methadone dose may be administered, depending on the level of alcohol. Other programs believe that as long as the person is not legally intoxicated, as defined by state law, the full methadone dose might be given.

However, I also believe that patients who seem to be clinically impaired should be medically evaluated prior to being given methadone. Alcohol may or may not be the problem, and other drugs or physical disorders need to be considered.

ATF: What treatment approaches for alcohol abuse seem to work for MMT patients?

VASTI: In some cases, I recommend inpatient alcohol treatment to get alcohol use under control while methadone dose is optimized. This also can be important for safely detoxifying the patient from alcohol prior to instituting therapy with drugs like disulfiram.

Disulfiram (Antabuse®) – which is an aversive agent that makes the patient feel ill if alcohol is ingested – has been effectively used as pharmacotherapy for alcohol abuse in patients on methadone. However, this depends heavily on patients being compliant with taking disulfiram every day. I've used this drug successfully in some patients, and it can be dispensed right at the MMT clinic. Although, I don't believe patients should be coerced into taking it.

Attendance at self-help groups, such as Alcoholics Anonymous or Methadone Anonymous, can be important. It can be very helpful if the patient forms a meaningful relationship – almost a dependency – with a supportive group and/or develops a sense of spirituality.

The bottom line is that dealing with alcohol use in MMT begins with recognizing it as a problem worthy of attention. Then, appropriate screening, assessment,

and treatment planning become essential ingredients for successful outcomes.

1. Stastny D, Potter M. Alcohol abuse by patients undergoing methadone treatment programmes. *Br J Addict.* 1991; 86(3):307-310.
2. Fairbank JA, Duntzman GH, Condelli W. Do methadone patients substitute other drugs for heroin? *Am J Drug Alcohol Abuse.* 1993;19(4):465-474.
3. Hubbard RL, et al. Overview of 1-year follow-up outcomes in drug abuse treatment outcome study (DATOS). *Psych Addict Behav.* 1997;11(4):261-278.
4. Caputo F, et al. Short-term methadone administration reduces alcohol consumption in non-alcoholic heroin addicts. *Alcohol Alcoholism.* 2002; 37(2):164-168.
5. Gordis EN, Sereny G. Effect of prior narcotic addiction on response to treatment of alcoholism. *Alcohol Clin Exp Res.* 1980;4(1):34-39.
6. Gelb AM, Richman BL, Anand OP. Quantitative and temporal relationships of alcohol use in narcotic addicts and methadone maintenance patients undergoing alcohol detoxification. *Am J Drug Alcohol Abuse.* 1978;5(2):191-198.
7. Herz A. Endogenous opioid systems and alcohol addiction. *Psychopharmacol.* 1997;129(2):99-111.
8. Lubrano S, Pacini M, Giuntoli G, Maremani I. Is craving for heroin and alcohol related to low methadone dosages in methadone maintained patients? *Heroin Add & Rel Clin Probl.* 2002;4(2):11-18.
9. el-Bassel N, Schilling RF, Turnbull JE, Su KH. Correlates of alcohol use among methadone patients. *Alcohol Clin Exp Res.* 1993;17(3):681-686.

A.T.F.

Learn more at the AATOD Conference...

Ernie Vasti, MD – along with Allan Cohen, MA, and Albert Hasson, MSW – will be conducting a special workshop titled, "Alcohol Abuse in NTPs (Narcotic Treatment Programs): Identification, Assessment, and Intervention." This session (#F3) will be on Wednesday, April 16th, at 9:45 AM.

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First and foremost, none of those trials examined methadone doses above 100 mg/d. Probably as a consequence of this, the studies reported disappointingly high rates of continued illicit-substance abuse and low rates of retention. None of the trials included measurements of SMLs as a verification of dose adequacy.

Some of the researchers conceded that the doses tested were likely inadequate for a great many patients, who no doubt suffered through part of each day in opioid withdrawal. Therefore, this body of evidence says more about the negative effects of methadone undermedication than helping to define the dimensions of truly adequate dosing practices. The one consistent observation coming from the trials is that those patients receiving relatively higher doses did better in terms of drug abstinence and retention in treatment.

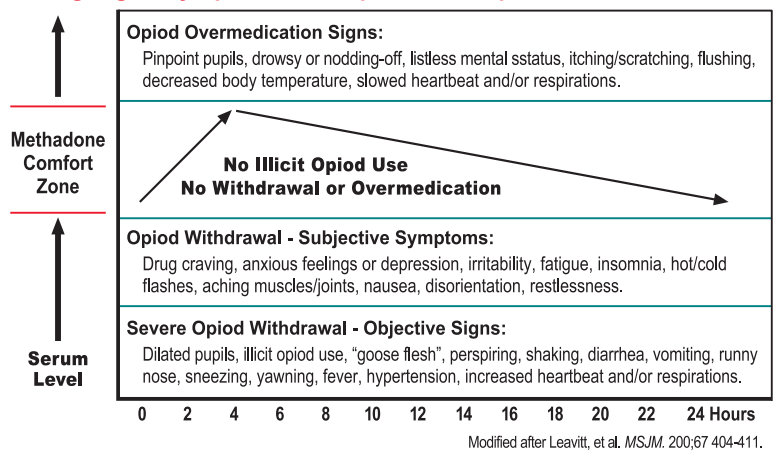
Newer research has examined the potential benefits and dimensions of higher, adequate methadone doses. In the largest, long-term study,[6] researchers identified 164 patients with excessive rates of continued opioid dependence, despite methadone doses of up to 100 mg/d. Using clinically-guided criteria, methadone doses were increased to an average of 211 mg/d (range 120-780 mg/d).

Quite dramatically, illicit-opioid-positive urinalysis rates in this "high dose" group decreased by 84% (from 87% to 3%). Moreover, the one-year retention-in-treatment was 86%. This compared with only 35% retention and 19% reduction in illicit-opioid use in a control group of patients randomly drawn from the clinic population (mean dose in this group was 69 mg/d; range 10-100 mg/d).

A recently reported 152-week followup of the "high dose" patients found that average doses had been increased to 285 mg/d (ranging up to 1100 mg/d).[15] Retention in treatment was 61% and only 16% exhibited opioid-positive urinalyses, which are exceptionally favorable long-term outcomes.

To date, only a handful of limited-scope studies have examined higher dosing levels – all producing very positive results. Hopefully, this line of clinical research will continue, with sufficient funding and on a larger scale.

Using Signs/Symptoms to Help Achieve Optimal Methadone Dose



How Much Methadone is "Adequate"?

Since there are so many factors that can influence individual responses to methadone, the clinical presentation of the patient can be the best guide for dosing decisions.[7,9] For any drug, there is a zone of clinical efficacy, bordered by regions of either undermedication or overmedication.[10] A challenge with methadone is that this effective "comfort" zone can be rather narrow, and it differs across individual patients.

Looking for clinical signs, listening to patient-reported symptoms, considering the timing of these in relation to daily dose, and noting patient response to dose changes can help achieve more favorable outcomes. Indicative signs and symptoms are outlined in the *chart*.[9]

As the SML increases with more adequate dosing, signs and symptoms of opioid withdrawal (abstinence syndrome) vanish. If the methadone dose becomes too high, the patient will exhibit signs of opioid overmedication. At the optimally adequate methadone dose, peak and trough SMLs stay well within the therapeutic "comfort zone" throughout a 24-hour dosing period.

Special circumstances need to be taken into account. Research has found that patients with psychiatric diagnoses, in addition to substance dependence, may need more than a 50% increase in methadone dose. Similarly, for reasons still under investigation, patients with hepatitis C have been found to require up to 50% increases in methadone dose for stabilization.[9,15]

In sum, thinking of "high dose" as being above a certain threshold is misleading. Patients differ widely when considering "adequate" dose ranges, and enlightened outlooks avoid value judgments of what is too high.

Methadone dosing practices may be changing. The most recent survey data

indicates that *accredited* MMT clinics are less likely to provide low doses to their patients.[13] Although accreditation agencies do not dictate dosing practices, this suggests that "best practices" are closely associated with outcomes achievable with more adequate methadone dosing. It is something to consider.

1. Optimal methadone dose? Research needs careful interpretation. *Addiction Treatment Forum*. 1997;6(1).*

2. Why measure methadone blood levels? *Addiction Treatment Forum*. 1999 (Summer);8(3).*

3. Reader survey – why measure methadone blood levels? *Addiction Treatment Forum*. 1999 (Fall);8(4).*

4. Shifting paradigms & slippery slopes. *Addiction Treatment Forum*. 2000(Summer);9(3).*

5. The 100 mg/d methadone glass ceiling. *Addiction Treatment Forum*. 2000(Fall);9(4).*

6. Redefining "adequate" methadone dose. *Addiction Treatment Forum*. 2001(Winter);10(1).*

7. Overcoming obstacles to optimum methadone dose. *Addiction Treatment Forum*. 2001 (Summer); 10(3).*

8. Reader survey - MMT attitudes. *Addiction Treatment Forum*. 2001(Fall);10(4).*

9. Leavitt SB, Shinderman M, Maxwell S, Eap CB, Paris P. When "enough" is not enough: new perspectives on optimal methadone maintenance dose. *Mt Sinai J Med*. 2000;67(5-6):404-411. Available online at: www.mssm.edu/msjournal.

10. Hardman JG, Limbird LE, eds. *Goodman & Gilman's; The Pharmacological Basis of Therapeutics*. 9th ed. New York: McGraw-Hill;1996:47-55.

11. Berkow R, Beers MH, eds. *Merck Manual*. 17th ed. Chapter 301: Factors affecting drug response. Whitehouse Station, NJ: Merck Research Laboratories; 1999.

12. Piscitelli SC, Rodvold KA, eds. *Drug Interactions in Infectious Diseases*. Totowa, NJ: Humana Press; 2001.

13. D'Aunno T, Pollack HA. Changes in methadone treatment practices: results from a national panel study, 1988-2000. *JAMA*. 2002;288(7):850-856.

14. Okruhlica L, Devinsk F, Valentova J, Klempova D. Does therapeutic threshold of methadone concentration in plasma exist? *Heroin Add & Rel Clin Probl*. 2002;4(1):29-36.

15. Maxwell S, Shinderman MS. Optimizing long-term response to methadone maintenance treatment: a 152-week follow-up using higher dose methadone. *J Addict Dis*. 2002;21(3):1-12.

*All articles from *Addiction Treatment Forum* are available online at <http://www.atforum.com>.

Reader Response - Alcohol in MMT?

In the Summer 2002 edition of *Addiction Treatment Forum* (Vol. 11, No. 3), readers were asked to comment on whether alcohol use among MMT patients is considered a problem and, if so, how they deal with it.

There were 145 responses received via feedback cards or at www.atforum.com. Roughly two-thirds were MMT staff members, while the rest were patients.

Nearly two-thirds considered alcohol use as a "serious problem" in their clinics. Only a very small percentage replied it was "of no significant consequence." *See Graph.*

According to all respondents, about 39% of patients, on average, continue to use alcohol while on methadone maintenance. The range was from 1% up to 90% in some clinics, but the most frequent estimate was 50%.

A Variety of Approaches

Two-thirds of those responding said their clinics have special programs or counseling for alcohol-using patients. However, the most frequently mentioned approach was encouraging patients to attend 12-Step program meetings, such as AA, NA, or MA (methadone anonymous). Such groups, which are outside of clinic sponsorship, discourage the use of all illicit drugs and alcohol.

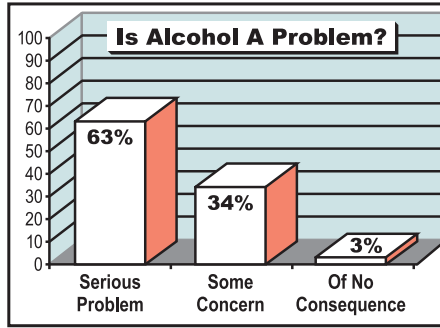
Antabuse (disulfiram) was mentioned by a number of respondents as being useful. Although, most said it is only one component of a more comprehensive approach.

Other approaches included specialized counseling or psychotherapy, relapse prevention programs, and clinic-operated support groups. However, it is concerning that a third of MMT clinics provide no helpful services for dealing specifically with alcohol, according to survey respondents.

Readers Comment

A staff member commented that alcohol use is an underestimated problem at most clinics. Testing for alcohol is only done if patients are obviously intoxicated.

A patient wrote that he suspects MMT patients continuing to abuse alcohol were likely alcoholic even before starting on heroin. However, a staff member observed that some patients who never drank while abusing opioids take up alcohol on a daily basis during MMT. He suspects they are trying to replace the effects illicit opioids once had.



At one clinic, a reader comments, alcohol-using patients have their methadone decreased 5 to 10 mg at a time, but this is stopped once urine tests come back negative for alcohol. The rewards for continued alcohol-abstinence include being able to remain in MMT and receive methadone dose increases if needed.

Similarly, at another MMT program, methadone dose increases above 50 mg/d are denied until the patient has 90 days of alcohol-negative urinalyses. If alcohol use continues, the patient can be discharged.

"Although we have no special program," a staff member writes, "we do caution patients about the dangers of combining CNS depressants [eg, alcohol, benzodiazepines] with methadone. Patients who refuse treatment for their alcohol addiction can be discharged from MMT."

The tone of most comments seemed to imply that denial of methadone dose increases or discharge from MMT are punitive measures. However, such policies might be imposed more for liability and patient safety reasons; in which case, these valid concerns are not being adequately communicated to patients or staff.

A.T.F.

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