1. Overview
Substance abuse is a major health problem across all age groups. Significant numbers of adolescents drink excessively, smoke cigarettes, and use illegal drugs. Limited, recent epidemiological data on persons with mental retardation suggests that individuals with mild retardation demonstrate similar rates of abuse for alcohol, marijuana and cigarettes as other adolescents and young adults. The abuse of other drugs such as methamphetamine and ecstasy are unknown (1).

The assessment and management of substance abuse in the person with mental retardation depends upon the level of intellectual ability, features of retardation and health problems associated with the underlying cause of retardation. Persons with mild retardation may have the same potential and opportunity to abuse any drug as a person with normal intellect. Persons with moderate to severe retardation or individuals with mild intellectual impairment and severe physical disabilities have diminished likelihood of access to illegal substances.

Many persons with mental retardation are prescribed medications such as psychostimulants, benzodiazepines, and pain medication that have high abuse potential and substantial market value on the street. Surveys of teenagers enrolled in substance abuse programs show that up to 23% of young abusers took non-prescribed psychostimulants and 6% had significant abuse (2), (3).

2. Epidemiology
Substance abuse is a common problem in all adolescents and young adults. The risk for substance abuse in the patient with mental retardation depends upon intellectual function, physical ability, and social status in social situations. Patients with mild mental retardation are at risk for all types of substance abuse. Patients with moderate, severe, or profound mental retardation should not have easy access to illicit drugs and the presence of these substances in such a patient is strongly suggestive of abuse or neglect.
The epidemiology of substance abuse in the patient with MR/DD has not been studied. Alcohol is probably the most common substance of abuse, followed by prescription drugs, marijuana and other illegal drugs.

Recreational use of alcohol or marijuana in a person with mental retardation is ill-advised. The consumption of alcohol during ceremonial events, e.g., wedding toast, is appropriate; however, the chronic consumption of alcohol or inhaling of cannabinoids increases the risk of delirium. No research is available on the effect of alcohol and marijuana on long-term cognitive function in the mentally retarded person; however, these drugs tend to slowly diminish cognitive function in normal individuals (4). The inference from available data implies that retarded person may be at risk for accelerated damaged from these drugs.

3. Assessment of Substance Abuse
The assessment of substance abuse in a person with retardation begins with an appropriate level of suspicion on the part of the clinician. Serum and urine toxicology are appropriate clinical investigations anytime a mildly retarded person develops new onset, psychiatric or behavioral problems. The new onset of unexplained health problems or functional decline warrants consideration of substance abuse as a possible underlying cause. The risk of drug-related complications, such as hepatitis, HIV infection, etc., is present in this group of individuals. Appropriate laboratory assessment and physical examination are indicated.

Substance abuse should be suspected anytime an independent person with MR/DD develops abrupt onset behavior problems, psychiatric symptoms, and functional deterioration. Self-injurious behavior is uncommon in mildly retarded persons and the new manifestation of this behavior in younger individuals suggests substance abuse. The borderline or mildly retarded person should undergo urine and serum toxicology screens for drug abuse. Any substance of abuse or non-prescribed prescription medication identified in the screen should be considered evidence of abuse.

The use of alcohol screening instruments has not been validated in this patient population. The CAGE instrument is probably helpful; however, this screening tool has not been normed for the mentally retarded.

Substance abuse is problematic in individuals with seizure disorders or other health problems related to syndromes that produce mental retardation.
Worsening of seizures may suggest substance abuse, such as drugs like cocaine or methamphetamine that may lower seizure threshold in persons with epilepsy.

Cigarette smoking is a form of addictive behavior and individuals who smoke cigarettes may also be at increased risk for drinking alcohol.

### Table 1

**Possible Behavioral Complications Associated with Substance Abuse in the Person with MR/DD**

<table>
<thead>
<tr>
<th>Substance</th>
<th>Confusion</th>
<th>Sedation</th>
<th>Psychosis</th>
<th>Irritability</th>
<th>Impulsivity</th>
<th>Self-Injurious Behavior</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alcohol</td>
<td>✓</td>
<td>✓</td>
<td></td>
<td>✓</td>
<td>✓</td>
<td>NR</td>
</tr>
<tr>
<td>Marijuana</td>
<td>✓</td>
<td>✓</td>
<td>?</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Methamphetamine</td>
<td>✓</td>
<td>?</td>
<td></td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Cocaine</td>
<td>✓</td>
<td>?</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Glue Inhalation</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
</tbody>
</table>

? = Unknown  ✓ = Possible Symptom  NR = Not Reported

The most available substances of abuse for person with MR/DD are listed in **Table 1** as well as expected symptoms produced by intoxication with those substances. Alcohol, marijuana, and methamphetamine are likely substances for abuse and intoxication can produce either psychiatric or behavioral problems.

Moderate to severely retarded persons should not have access to illegal substances, alcohol or cigarettes. The administration of alcohol or illegal drugs to moderately or severely retarded person is harmful to the health of the individual and this action constitutes abuse. Many substances of abuse, e.g., psychostimulants, may lower seizure threshold.

### 4. Treatment

Treatment for substance abuse includes detoxification and long-term supportive therapy to maintain sobriety. Medications that promote sobriety, such as disulphiram and naltrexone, are used with great care for individuals who may have limited capacity to understand the consequences of continued abuse. Behavioral intervention and psychological support are the primary mode of therapy for these individuals. Ongoing toxicological surveillance is indicated for persons involved with the criminal justice system.
The management of the person with DD/MR who is experiencing acute intoxication from a particular substance is identical to that for intellectually intact persons. The long-term management may be complicated by the individual’s limited ability to participate in rehabilitation or group activities that target substance abusers. No specific treatment paradigm is proven to be effective for persons with MR/DD, although programs are described through the National Association for the Dually Diagnosed. Frequent drug testing is indicated; especially for those referred by the criminal justice system.

The patient with MR/DD who is an active substance abuser represents a poor candidate for habilitative services and these individuals increase their risk for involvement with the criminal justice system. The use of pharmacological intervention to reduce drug craving or substance abuse relapse is not described in persons with MR/DD. Sobriety, recovery, and relapse prevention are best mediated through behavioral and psychological mechanisms.
References:


