CLINICAL CONCERNS IN DENTAL CARE FOR PERSONS WITH MENTAL ILLNESS

Purpose of this Module

The information presented in this module is intended to provide the institutional dental staff with a comprehensive discussion of oral health care for persons with mental illness in institutional settings as well as the challenges faced by the dental profession treating these persons in outpatient settings.

Learning Objectives

After reviewing this module, the participant will be able to:

1. Describe five psychiatric disorders commonly encountered in mental health facilities.

2. Discuss the oral manifestations commonly occurring in these five disorders.

3. Identify the drugs commonly used to treat these disorders.

4. Describe potential side effects and significant interactions encountered with psychotropic medicines and drugs used in dentistry.

5. Discuss barriers to dental care and general concerns in the provision of dental care in mental health facilities.

CLINICAL CONCERNS IN DENTAL CARE FOR PERSONS WITH MENTAL ILLNESS

INTRODUCTION

A comprehensive discussion of oral health care for persons with mental illness (MI) in an institutional setting is somewhat challenging due to the variability of populations served by mental health (MH) facilities. In contrast, facilities that serve the mentally retarded (MR) population are almost universally involved with persons with severe and profound mental retardation. These persons often have severe physical and medical conditions especially cerebral palsy and seizure disorders and accompanying behavioral problems which frequently require physical restraint and often conscious sedation for the provision of dental care. One type of mental health facility, for example, may be in an urban environment and primarily serve persons with acute psychiatric disorders on a relatively short term basis with an average length of stay of 3 to 6 months. Another MH facility may be a large facility in a rural environment primarily serving persons with chronic psychiatric disorders that are relatively refractory to psychotherapy or pharmaceutical management. Yet another MH facility may serve primarily elderly persons with dementia, including Alzheimer's disorder, and may closely resemble a community nursing home. Most of these facilities also serve the person with alcohol abuse or other substance abuse (SA) problems and often encounter clients with dual diagnoses (e.g. MI/MR or MI/SA). Many facilities may serve all of these populations. In addition, they may be combined with a mental retardation unit, may serve MR outpatients and occasionally may serve MH clients from the community. Therefore, the challenges faced by the dental staff in a MH facility may be more variable although not necessarily more difficult than those faced by the staff in MR facilities.

The term "mental illness" generally refers to a person who cannot perform major activities of daily living due to a psychiatric or emotional disorder. This is in contrast to a person with mental retardation who has similar dysfunctions due to a cognitive or intellectual deficit. These two disorders, however, are not mutually exclusive. The prevalence of mental retardation is often reported as 3% of the general population.[1] Whereas it is estimated that one out of every six persons (17%) in the general population suffers from some form of diagnosable mental disorder, ranging from a mild neurosis to a more serious disorder such as schizophrenia.[2] Mental retardation is a permanent condition even though the effects of this cognitive deficit may be ameliorated by special training programs and care. Mental illness, on the other hand, may be sporadic in nature; for example, it is not uncommon for many persons to seek professional care for clinical depression once or twice in their lifetime yet function adequately the remainder of their life without professional therapy or medication.

The advent of psychotropic medications available to treat persons with mental illness drastically changed the MH institutional environment in the past several decades.[3] With these medications and other supportive therapies, most persons with mental illness can live within the community setting. The institution primarily serves those MI clients with chronic refractive disorders (such as severe and chronic schizophrenia or dementia) and those persons temporarily institutionalized due to maladaptive behaviors associated with exacerbations of mental illness (such as severe aggressive behaviors associated with acute psychosis). Although there are certain skills and knowledge required by the general dentist in private practice to properly treat the MI population compared with the general population, the dental implications involved with treating the institutionalized MI population present challenges of far greater magnitude.

DENTAL MANIFESTATIONS AND IMPLICATIONS OF PSYCHIATRIC DISORDERS

Note: Much of the descriptive material in this section was excerpted, with permission, from *Patients with Physical and Mental Disabilities: Oral Health Care Guidelines* American Dental Association, May 1991. Copies of this manual may be obtained by

writing the ADA Council on Community Health, Hospital, and Institutional and Medical Affairs, 211 East Chicago Avenue, Chicago, Illinois, 60611

All dental staff in a MH facility should be familiar with and have access to the most current *Diagnostic and Statistical Manual of Mental Disorders* (DSM-IV).[4] This is the latest revision (1995) of this manual which was developed to standardize diagnosis of psychiatric illness through use of specific criteria for each diagnosis. The manual utilizes five axes to formulate the diagnosis of psychiatric patients. Use of the multiaxial classification system ensures that all aspects of the illness and influences on it are considered. No attempt will be made to discuss the multiaxial evaluation here, but the dental staff in a MH facility should review and be familiar with the general concepts in the manual.

No attempt has been made to fully discuss the following syndromes but will concentrate on a brief description of the dental implications of these conditions. The dental staff should consult appropriate psychiatric texts for more complete syndrome descriptions and review the cited bibliographic references for further information on dental care of persons with these disorders. Although some information on various medications used to treat these disorders is presented here and in the following section, more complete information on the side effects of major psychotropic drugs and the undesirable interactions of these drugs with drugs commonly prescribed by dentists may be found in other sources.

O Major Depression[5-9]

Major depression is an affective disorder (outward manifestation of a person's feelings, tone or mood) characterized by a prolonged depressed disturbance of mood which significantly affects the person's life. It is estimated that severe depression affects approximately 6% of the population and that nearly 3% of the population requires at least one hospitalization for depression. Depression is a factor in more than 30,000 suicides in the USA annually. This syndrome is one of the most widespread of all life threatening disorders. There is a loss of interest or pleasure in all or nearly all daily activities and pastimes. The disturbance is significant, persistent and may be associated with loss of appetite, loss of weight, sleep disturbances (usually insomnia) and decreased energy. The individual will appear sad (frequently fearful) and express feelings of worthlessness, hopelessness and guilt. The person may have difficulty with memory, concentration and be easily distracted and indecisive. Thoughts of death or suicide are common. Delusions or hallucinations are consistent with the person's mood. These individuals can feel persecuted and hear voices detailing their shortcomings. When an individual is in the depth of depression, there is a significant impairment in personal hygiene and an almost total absence of oral hygiene. Common dental manifestations of major depression are:

1. poor oral hygiene
2. rampant dental decay
3. advanced generalized periodontal disease
4. multiple missing teeth
5. ill fitting dental prostheses
6. various oral-facial pain syndromes
7. xerostomia
8. poor nutrition, and poor diet

Major depression is usually treated with medications, psychotherapy, diet, exercise, correction of sleep disturbances, and occasionally may be treated with electroconvulsive therapy (ECT). The most common antidepressant medications prescribed are: a)Selective Serotonin Reuptake Inhibitors (SSRI's), b)Tricyclic antidepressants and combinations, and c) MAO (Monoamine Oxidase) inhibitors.

Dental treatment involves addressing the problem of poor oral hygiene and resultant decay and periodontal disease. Motivating the patient to improve oral hygiene procedures is often difficult. The issue of dry mouth (xerostomia) associated with antidepressant medications must also be addressed. Xerostomia has been observed in 14% of those persons taking Prozac and in 45% of those taking Tricyclic antidepressant.[9] Many of these individuals consume large amounts of cariogenic fluids, candy and chewing gum in an effort to combat this symptom. The prescription of artificial saliva substitutes is often indicated.

Local anesthetics with epinephrine may be used with prudence with patients taking tricyclic medications but is contraindicated with those taking MAO inhibitors. However, the use of local anesthetics with Neo-Cobefrin or Levophed is contraindicated with patients receiving tricyclic medications.[12] The use of meperidine (Demerol) is absolutely contraindicated with patients taking MAO inhibitors.[6] The use of dental sedatives should be judiciously for those taking tricycle medications.

The dentist may be requested to fabricate a mouth guard for patients scheduled for ECT. For these patients it is also important for loose teeth, gross calculus and loose fixed or removable prostheses to be addressed prior to ECT to prevent possible aspiration, and to document existing condition if liability issues arise later on.

O Bipolar Disorder[10-13]

Bipolar disorder, also called manic-depressive disorder, is an affective disorder in which the patient suffers from alternating, prolonged episodes of extreme elation and depression. This condition affects approximately 1% of the general population and there is a strong familial pattern to this disease.

Periods of mania are generally characterized by hyperactivity which involves excessive participation in multiple activities (e.g. sexual, occupational, political, religious). There is an intrusive and demanding nature to these activities which goes unrecognized by the patient. Pressured speech is common. It is loud, rapid and difficult to interrupt. Speech is theatrical and dramatic, and there are abrupt changes in topic (flights of fancies or ideas).

Persons with bipolar disorder are easily distracted and some display grandiose delusions in which they claim a special relationship to God or some well known figure from the political or entertainment world. They may go for days with little or no sleep and yet not appear tired. Lability of mood with rapid shifts to anger or depression is common.

During periods of depression, there is a loss of interest in almost all daily activities. This period is identical to the individual with major depression described above. Impairment in social and occupational functioning occurs during both phases of the disorder with marital instability, alienation from family, and the inability to hold a job being common. These individuals have a need for protection from the consequences of poor judgement, hyperactivity and the predilection to violent acting out. The most common complications of a manic episode are substance abuse and the consequences of actions resulting from impaired judgement, such as financial losses and illegal activities. The most common complication of an episode of depression is suicide.

The periodicity of the disease is variable with episodes lasting approximately 3 months and possible reoccurrences every 3-9 years. The manic episodes tend to be of shorter duration than the depressive episodes. With increasing age the interval between episodes becomes shorter and the length of each episode increases. Untreated persons have more depressive episodes than manic episodes. One study[11] of 40 subjects showed that at time of admission, 37 were in the depressive stage and 3 in the manic stage of the illness. All 40 subjects had a history of previous psychiatric hospitalization. The onset of the disease after age 21 occurred in 83% of these subjects. Heavy smoking (one or more packs a day) was reported in 93%, alcohol dependence in 38% and a history of cocaine abuse in 20% of those subjects was reported.

The dental manifestations of the manic stage of this disorder may include abraded oral mucosa and/or cervical tooth abrasion secondary to the over-vigorous use of toothbrushes or dental floss. The dental manifestations of the depressive stage of this disorder are identical to those described under major depression above.

Anti-seizure medications, lithium carbonate and neuroleptics (phenothiazine family of drugs) are effective in treating the manic phase of this disorder. Lithium carbonate is usually effective in 70% of patients within 3 weeks. The depressive episodes are treated with the temporary administration of antidepressant medications described above for major depression. Persons on lithium therapy may complain of a generalized stomatitis and concurrent xerostomia; although hypersalivation has been reported. Xerostomia was reported in 73% of the subjects in the above study[11] after lithium treatment had begun.

Major adverse interactions between lithium and medications commonly used in dentistry are rare. However, the use of nonsteroidal anti-inflammatory drugs (NSAID) may decrease the renal clearance of lithium and allow a buildup of toxic levels. Short term use of NSAIDs may not pose a problem. Benzodiazepines should be used with caution due to the potential for CNS depression. Major problems with antidepressant drugs used for the depressive stage of this disorder have previously been discussed.

O Schizophrenia[14-19]

Schizophrenia is a psychotic disorder characterized by varying degrees of personality disorganization which lessens an individual's ability to effectively work and communicate with others. Approximately 1-2% of the general population will need hospitalization because of this disorder at one time in their lives. It is characterized by impairment of routine daily

functions such as work, social relations and self care, that lasts for at least 6 continuous months. A predominant characteristic is the disturbance of several psychological processes. Thoughts are disrupted by bizarre (absurd and imagined) delusions (a firm, fixed idea without rational explanation). Persecutory delusions (being spied on) and delusions of reference (giving unusual negative significance to other people or events, such as thinking that a television program is specifically directed at them), are common. These individuals can believe that their thoughts are being broadcast and that their feelings and impulses are under the control of others. Their ideas may rapidly shift between unrelated subjects, frequently making their speech incoherent. They can have major disturbances in perception by having hallucinations (a false sensory perception - the hearing of voices that make insulting statements - in the absence of an actual external stimulus). They often present a flattened or blunted affect (absence of demonstrable emotions along with a monotonous voice and expressionless face). They may question their own identity and lack the drive to follow a course of action through to its logical conclusion. There may be a reduction in spontaneous movements, catatonic rigidity or bizarre mannerisms such as grimacing, hyperactivity and pacing.

Because these individuals are frequently confused, depressed, withdrawn, or anxious they often neglect or refuse dental care. Family disassociation, marginal social and economic adjustment and legal problems exacerbate this issue. This dental neglect and often poor oral hygiene, in conjunction with the xerostomia caused by some antipsychotic medications, lead to increased incidence of dental decay and periodontal disease. Patients with paranoid schizophrenia may be very suspicious and should be approached, verbally and physically, very slowly and in a nonthreatening manner. There should be no sudden movements. The patient should be warned of things to expect and should be shown what is going to be done at each next step.

Schizophrenia is usually treated with antipsychotic or neuroleptic drugs which include the phenothiazines and other antipsychotic agents which generally have some beneficial effect on the patient's mood and thought processes. These neuroleptic agents can cause short term extrapyramidal symptoms (EPS) which include generalized agitation or jitteriness, spasms of neck muscles (torticollis) and oculogyric crises which can usually be controlled by use of IM Benadryl. Long term effects of a similar nature, termed tardive dyskinesia, also include trismus, swallowing dysfunctions, tongue protrusion, or Parkinsonian-like movements which include continuous facial movement, particularly of the lips and jaws which may include lip chewing, tongue wiping, smacking movements and general skeletal movements. Tardive dyskinesia is associated with long term antipsychotic therapy, especially the phenothiazines, and can often be controlled by Cogentin and Artane. Akathisia may develop in these patients and is manifested by restlessness, inability to sit still and a tendency to move their body and legs during treatment. These people have a desire to get up and move about during their dental appointment.

Dental sedative medications should be used with caution to prevent a synergistic reaction with the neuroleptic agents resulting in excessive respiratory depression. Local anesthesia with epinephrine causes no adverse effects in normotensive patients.

o Dementia[20-27]

Dementias have been variably classified as medical (neurologic) and/or psychiatric disorders and include Alzheimer's disease. Dementia is a loss of intellectual function sufficiently severe to interfere with social or occupational abilities. This loss involves memory, judgement, abstract thought, and a variety of higher cortical functions. Individuals 65 years of age and older are most susceptible to organic brain syndromes. The prevalence of dementia increases in individuals over age 65, from approximately 2-3% of those aged 65 through 79 to more than 20% for those 80 years of age and older. Patients with dementia, regardless of the pathophysiology of their condition, are characterized by progressively poor short term memory resulting in a potential for agitation, disorientation and inappropriate behavior in unfamiliar settings. More advanced states of the disease are typically marked by incontinence, increasing loss of abilities to perform self care, limb contracture and eventually a vegetative state and then death. In most advanced dementias, apraxia (a disorder of voluntary movements) and memory loss are profound. Patients become incapable of recognizing and making proper use of objects normally utilized in daily living (including toothbrushes, etc.). Many of these patients are prescribed neuroleptic medications to control behaviors which often cause xerostomia previously discussed.

Patients with dementia often manifest the following dental problems:

1. maxillofacial injuries (usually due to falls)
2. traumatic oral ulcerations
3. poor oral hygiene
4. extensive coronal and root cavities
5. increased periodontal disease
6. numerous missing or severely broken teeth
7. attrition, abrasion and migration of residual dentition
8. salivary gland dysfunction
9. severe atrophy of residual alveolar ridges
10. nonfunctional dental prostheses
11. xerostomia
12. candidiasis

Dental treatment should be completed as early as possible in progressive dementias (e.g. Alzheimer's Disease), since inability to cooperate due to behavioral dysfunction increases as the dementia progresses. If long term care is anticipated (e.g. permanent facility admissions), full mouth diagnostic radiographs should be taken, if at all possible, for future reference, when the progressive dementia renders radiographs impossible. As with most psychiatric disorders, consultation with the patient's treatment team (including physician) will provide valuable information on present self-help and behavioral limitations as well as some estimate as to the rate of loss of these functions in the future. The problem of drug-induced xerostomia has previously been discussed. The problem with candidiasis is experienced by 5-20% of these patients on antipsychotic medications. Current methods of treatment are appropriate for this population, for example the use of chlorhexidine rinses and denture scrubs are helpful but they must be tailored to the patient's ability to use them properly. Many patients can not rinse solution for 30 seconds and will swallow everything put in their mouth. In addressing the problem of dental decay (especially root caries), more frequent recalls for prophylaxes and fluoride applications may be the only option. Adverse interactions between drugs prescribed by the dentist and medically prescribed neuroleptic drugs has been previously mentioned. Since liver and kidney functions are often drastically diminished in old age, the prescription of any medication should be made with caution. Particularly long acting drugs and long term use of nonsteroidal anti-inflammatory agents need to be used with caution. A good rule of thumb is to remember that in the elderly, a single dose of most drugs will produce a peak blood level twice as high and a half-life twice as long as in a younger patient.

In addressing the maladaptive behaviors presented in the dental environment by patients with dementia, many of the management and communication techniques used with the mentally retarded population are appropriate (See Module 2). These would include: communicating acceptance and reassurance, increased utilization of non verbal communication (e.g. smiling, making eye contact, gently touching the patient), more repetition of instructions, avoidance of abstract terms, and use of nouns rather than pronouns, short words and sentences, and simple verbal communication.

O Alcohol and Other Substance Abuse/Dependence[28-39]

Whether coupled with a psychiatric disorder (MI/SA dual diagnosis) or presented as a primary disability, the dental treatment of persons with alcoholism and other substance abuse (SA) problems presents a great challenge to the dental staff in MH facilities. The prevalence of alcoholism alone has been estimated at 28-50% in psychiatric hospitals.[38] The person with alcoholism is also more likely to abuse or be dependent on other (illicit) drugs such as heroin and cocaine. The definition of alcohol abuse, alcohol dependence, other substance abuse and dependence can be found in thediagnostic manuals and/or reference texts.

The dental implications of alcoholism include:

1. poor oral hygiene
2. dental neglect
3. dental attrition (bruxism)
4. xerostomia (atrophy of salivary glands)
5. higher incidence of oral cancer (heavy smoking)
6. candidiasis (poor nutrition)
7. impaired wound healing (liver damage)
8. orofacial trauma
9. bleeding tendency (liver damage)

Dental management of these patients involves addressing the above issues. Since there is an increased risk of intraoperative or postoperative bleeding, a bleeding profile (CBC, PT, PTT and bleeding time) is often indicated prior to oral surgery. The tendency toward a prolonged healing process and increased risk of postoperative infection may prompt greater use of antibiotics post surgically. Perioral

damage, including fractured mandibles, is usually treated by an oral surgeon through referral. However, the dentist should be aware that a significant number of these patients have developed osteomyelitis of the mandible following a compound fracture. The higher risk of oral cancer requires careful screening at the time of initial dental examination. Alcoholic patients may have an altered response to many medications. As they develop a tolerance to ethanol, they also develop a tolerance for sedative drugs, and often require higher than usual doses to achieve the desired degree of sedation. All drugs metabolized by the liver should be given with caution. These include: lidocaine (Xylocaine), mepivacaine (Carbocaine), ampicillin, aspirin, acetaminophen (Tylenol), codeine, diazepam, and barbiturates. It has been recommended that the ester class of local anesthetics (Ravocaine) be used for patients with alcoholic cirrhosis.[28] It has been reported that for patients with long histories of chronic alcoholism, a significant increase in the quantity of local anesthetic is needed to control pain.[30]

The dental implications and management of the patient who abuses or is dependent on substances other than alcohol is similar for the alcoholic patient. Patients who use, abuse or are dependent on illicit drugs, often intravenously administered, are clearly at higher risk for HBV and HIV infection. The management of these conditions including infection control concerns, are not included here. Cardiac irritability and hypotension are major complications of cocaine use (especially with `crack' cocaine). The use of a local anesthetic with epinephrine is strongly contraindicated with anyone who has used cocaine within the last 48 hours. Hyperactivity and hypersensitivity to local anesthetics has been reported with this group.[30]

The dental management of the recovered or recovering chemically dependent patient (both alcoholism and drug addiction) presents additional challenges. Care should be taken in prescribing drugs with mood-altering potential. This includes sedative medications (including Nitrous Oxide/Oxygen analgesia) and potentially addictive analgesics which would include virtually all pain medications except nonsteroidal anti-inflammatory drugs such as aspirin, ibuprofen and diflunisal. If the prescribing dentist has any concerns regarding the use of analgesia for substance abuse/dependence patients, he/she should contact the attending physician. In cases involving major severe periodontal or oral surgery, narcotic agents should be prescribed with extreme caution and only after the primary agents (e.g., ibuprofen) fail. The amount of medication dispensed should be enough to last only through the worst of the patient's pain, usually no more than 48 hours, and if possible, be dispensed by someone other than the patient to avoid self-medication. Any medication for merely anticipated pain absolutely should be avoided. To reduce the need for postoperative analgesics, a long lasting local anesthetic such as bupivacaine (Marcaine) may be employed. Recovering alcoholics on Antabuse therapy should avoid all oral or topical alcohol based products such as mouth washes. Non-alcohol containing mouth washes are commercially available.

COMMON PSYCHOTROPIC MEDICATIONS AND MAJOR SIDE EFFECTS[40]

Note: No attempt has been made to be all inclusive of psychiatric medications or their range of potential side effects. It is very difficult to keep an up to date listing of psychotropic drugs as new drugs are constanly being added. Please review current references regarding recent psychotrophic medications.

The following information, some of which has previously been mentioned under the specific mental illness, is intended to serve as general information. References listed at the end of this module will provide additional information.

Antidepressant Agents

A number of antidepressant agents are used today, falling into three categories:

1. **Selective Serotonin Reuptake Inhibitors (SSRI's)**
   a. Adapin (doxepin)
   b. Anafranil (clomipramine)
   c. Asendin (amoxapine)
   d. Elavil (amitriptyline)
   e. Etrafon (perphenazine and amitriptyline)
   f. Limbitrol (chlordiazepoxide and amitriptyline)
   g. Ludiomil (maprotiline)
   h. Norpramin (desipramine)
   i. Pamelor (nortriptyline)
   j. Sinequan (doxepin)
   k. Surmontil (trimipramine maleate)
   l. Tofranil (imipramine)

m. Triavil (perphenazine and amitriptyline
n. Vivactil (protriptyline)

2. Tricyclic Antidepressants and Combinations
a. Prozac (fluoxetine)
b. Zoloft (sertraline)
c. Paxil (paroxetine)
d. Desyrel (trazodone)
e. Effexor (venlafaxine)
f. Serzone (nefazodone)

3. **Monoamine Oxidase Inhibitors (MAO)**
a. Marplan (isocarboxazid)
b. Nardil (phenelzine sulfate)
c. Parnate (tranylcypromine sulfate)

Precautions for patients being treated with these medications must be taken since antidepressant agents can cause adverse reactions of concern to dentists. These agents may affect the cardiovascular system causing hypotension, orthostatic hypotension, tachycardia, arrhythmias, myocardial infarction and congestive heart failure. Additionally, anticholinergic activity may cause dry mouth.

Adverse reactions between antidepressant agents and drugs used in dentistry may produce significant interactions. Central nervous system depressant medications such as general anesthesia agents, sedatives and hypnotics, barbiturates, and narcotics can have a potentiating interaction resulting in severe respiratory depression. In fact, the use of Demerol is absolutely contraindicated in patients taking MAO inhibitors. The use of anticholinergic drugs such as atropine or scopolamine can cause an increase in intraocular pressure. Certain antihistamines such as phenylephrine should not be used with MAO inhibitors. Local anesthetics with epinephrine should be used with caution in patients receiving MAO inhibitors. Should local anesthetics with epinephrine be used with patients taking other types of antidepressants (other than MAO inhibitors) the amount of local anesthesia should be limited to three carpules of 1:100,000 epinephrine and intravascular injections must be avoided. Epinephrine in concentrated forms such as retraction cords should be avoided. Leuonordefrin would not be recommended for use in patients receiving tricyclic antidepressents.[20]

Antimanic Agents

Antimanic agents administered today in the treatment of the manic stage of bipolar disorders include:
1. Lithonate (lithium carbonate)
2. Certain neuroleptics
3. Anti-seizure medications (Depakote and Tegretal)

The neuroleptics will be discussed under the section on antipsychotic agents where the reader will find a number of precautions. Adverse reactions between lithium carbonate and medications commonly used in dentistry are limited to nonsteroidal anti-inflammatory drugs (NSAID's) as previously discussed. The risk of elevated serum lithium levels with patients receiving both lithium carbonate and NSAID drugs may be minimal for those receiving only short term regimens of NSAIDs for dental pain. However, a medical consultation, with the patient's physician, may be considered prior to prescribing NSAIDs. Erthromyan can significantly raise the blood level of Tegretal. If this combination is to be used, it should be discussed with the attending physician.

Neuroleptics (Antipsychotics)

Antipsychotic agents administered today in the treatment of schizophrenia and other psychiatric disorders include:

<u>Atypical Antipsychotics</u>
A. Clozaric (clozapine)
B. Risperdal (resperidone)
C. Olanzipine (zyprexa)

Caution should be taken when using benzodrozepine for sedation in patients taking clozeril. Discuss this combination with the attending physician.

<u>Convetnional Neuroleptics</u>
1. Mellaril (thioridazine)
2. Prolixin (fluphenazine)
3. Stelazine (trifluoperazine)
4. Thorazine (chlorpromazine)
5. Haldol (haloperidol)
6. Loxitane (loxapine succinate)
7. Navane (thiothixene)

It may be helpful to note that agents 1-4 fall into the phenothiazine type of antipsychotic agents. Interactions between antipsychotic medications and drugs

used in dentistry can produce adverse reactions. Effects of these drugs which are significant to dental management include:

1. Cardiovascular effects such as tachycardia, changes in blood pressure, orthostatic hypotension.
2. Hematopoietic effects such as decreased red and white blood cells and platelets.
3. Tardive dyskinesia
4. Akathisia
5. Extrapyramidal reactions

These agents can interact with CNS depressant medications causing severe respiratory depression. This can be dangerous, particularly in patients with compromised respiratory function. If these drugs must be used, the dosage must be reduced and the dentist might be wise to consult with the patient's physicians. Atropine and scopolamine (anticholinergic agents) can cause an increase in intraocular pressures. The use of local anesthetics with epinephrine should follow the same precautions as with the antidepressants, aspirate when injecting to avoid intravascular injections and use no more than 3 carpules of 1:100,000 epinephrine. Epinephrine in concentrated forms such as retraction cords should be avoided.

GENERAL DENTAL CARE CONCERNS IN A MENTAL HEALTH FACILITY [41-49]

The programmatic and administrative challenges expected by dental programs within these facilities will vary greatly with the size of the facility, the characteristics of the population(s) served, and budgetary issues. The primary function of the facility is seen as admitting a psychiatric patient (usually in acute crisis), ameliorating their psychoses and returning these persons to the community as functioning individuals. Medical concerns (including dental) that are not perceived as having a direct impact on the psychiatric management of the patient are often seen as incidental to the mission of the facility and unimportant. Often, it is the dental staff that recognizes that dental pain and discomfort often exacerbate the psychoses of these patients and that the dental neglect experienced by so many of these clients prior to admission, contributes to their depression, anxiety and negative self-image. Therefore, it is the dental staff who must accept the role of advocate for these clients and successfully compete for adequate resources (staff, space, and budget) required to meet the dental needs of the psychiatric patient.

Details of patient consent for treatment have been extensively covered in Modules 6 and 13. However, it should be reemphasized that issues of patient consent in MH facilities differ from those in MR facilities in two major areas. First, the psychiatric client may be admitted (voluntarily or involuntarily) to a psychiatric facility due to his/her inability to function within the community, yet he/she may still retain competence in some areas of function, including the ability to competently accept or refuse dental care. Whereas a severely retarded individual in a MR facility is seen as incompetent (either defacto, dejure or both) to make such decisions and consent is usually obtained from the legal guardian. Clearly, a psychiatric patient may be equally incompetent to make decisions about dental or medical care but the issue is not as obvious and straight forward as with the person with severe/profound mental retardation. Another issue is the refusal of dental care by a patient with severe and progressive dementia. The dentist can get a general feeling of what the patient might desire for dental treatment by discussing details with the family and reviewing the type of dental care received in the past. However, legally you are bound to informed consent for treatment and whatever legal status the patient presents with. If the patient has Alzheimer's disease and a guardian has not been appointed, their consent must be obtained from the patient after discussing treatment options. Competency can be discussed with the psychiatrial or attending physician to see if they believe the patient can understand simple statements regarding treatment. If the patient can not give consent, only emergency treatment which threatens the health of the patient can be rendered until a guardian is appointed.

The question as to the appropriate level of care based upon the expected length of patient admission is a constant dilemma for the dental staff. Short term (4-10 week) residents usually receive only emergency or palliative care. For long term residents (2 years of longer) comprehensive care, including prostheses, is appropriate. Unfortunately, the expected length of admission is not usually clear to the hospital staff. Observing the abrupt discharge of a patient in the midst of restorative or prosthetic dental care or discovering a long term resident neglected by having received only emergency care is clearly frustrating for

the dental staff. For restorative treatment, an acceptable attitude may be that it is better to provide four quadrants of restorative treatment to one patient than to provide one quadrant of treatment to four different clients: At least one person will be restored to full dental health with the former attitude.

The unanticipated discharge of a patient in the middle of prosthetic construction is particularly frustrating for the dentist. Not only is a considerable amount of staff time wasted, but interim laboratory bills have been generated to no subsequent purpose. One approach is to gain a commitment from the patient's treatment planning team, prior to the initiation of prosthetic care, that in the event discharge occurs prior to treatment completion that arrangements will be made by the community agencies to return the individual to the facility as an outpatient to complete the prosthetic treatment and that these arrangements will be clearly stated in the patient's discharge plan. The delay of a person's discharge from a psychiatric facility merely to complete dental treatment is usually not an acceptable option.

A converse dilemma for the dentist is the occasional need for the dentist to convince a patient's treatment planning team that dentures for certain psychiatric patients are not a possibility due to the patients inability to tolerate the prosthesis. This is particularly a problem in patients with behavioral problems common in dementia or with severe dyskinesia due to psychotropic drug use. For example, severe tardive dyskinesia almost always precludes the success of a complete denture.

The material presented makes it clear that most patients in psychiatric facilities are prescribed a multitude of medications which may have a negative impact on dental care and may produce serious and/or undesirable interactions with drugs prescribed by the dentist. Although this training module and other literature references may prepare the dentist for possible adverse events, a close working relationship with the facility's clinical pharmacist(s) is mandatory for proper patient care. The pharmacy staff are not only convenient in a MH facility but are almost always cooperative and eager to work with the dentist in drug choice, dose selection, or possible adverse action or drug interactions.

Although the dentist should be familiar with the various aspects and manifestations of different psychiatric diagnoses, it is clear that the dentist and staff do not treat a diagnosis but provide care to an individual. The maintenance of a positive, caring, nonthreatening, accepting and non-judgmental professional attitude with patients who are often anxious, fearful, untrusting, agitated and occasionally combative, is often difficult. The fact that most dental staff in mental health facilities do so with aplomb and consistent commitment is admirable.

OUTPATIENT SERVICES FOR MENTAL HEALTH CLIENTS[50-53]

Although few facilities presently offer outpatient dental services to persons with mental illness, there may be a greater demand for these services in the future. There is a paucity of information to guide the dental staff on this issue, but the following monograph presents a description of one institutional program providing these services[50].

INTRODUCTION

There has been considerable media attention in recent years on the plight of the homeless population in the United States. Some of this population consists of individuals with mental illness, many of whom have previously been provided dental care in an institutional setting. Estimates as high as 40% of the homeless population have a diagnosis of mental illness.[51] Many of these individuals also have alcoholism and substance abuse problems. In addition, there are an even greater number of previously institutionalized mental health clients in supportive living arrangements within the community who cannot afford private dental care and for whom dental services are not provided by Medicaid or other public assistance arrangements.

There are numerous references outlining the specific dental needs of individuals with mental illness and substance abuse. Most of these sources emphasize the problems of poor oral hygiene, undesirable side effects of psychotropic medications and the high degree of dental neglect, including periodontal disease, seen in many of these individuals. Other references provide excellent material on the dental management of persons with specific psychiatric disorders such as schizophrenia, clinical depression and bipolar disorders as well as alcoholism and drug abuse.[8-16] There is, however, a paucity of information on the planning, implementation, administration and evaluation of dental programs for community placed mental health

clients who cannot access traditional sources of care due to their continued dysfunction.[52-55]

The following is a description and discussion of one example of this type of program.

PROGRAM DESCRIPTION

In 1972 the Georgia Retardation Center, a residential facility for persons with mental retardation (MR), initiated outpatient dental services for similar individuals who reside in the community. The number of clients served rose over a 6-8 year period to approximately 1,600 individuals and has remained relatively static for the past 14 years. The eligibility criteria include the diagnosis of mental retardation and the inability of the client to access services elsewhere, either from private or other public resources.

In 1985 this facility, renamed Brook Run in 1991, also initiated a limited outpatient program for community based clients with mental illness. This program served a selected geographic area of the state and included 19 counties both urban and rural. The reason for initiating this program was to serve as an example to other institutional programs and to act as a pilot project to determine the advantages and difficulties of this type of service. Referrals were only accepted from specified state and county supported Mental Health (MH) centers within the selected geographic area and client eligibility included: 1) The individual is presently enrolled in the MH Center programs, (2) no services are available from any alternative resource, 3) the treatment is expected to make a significant contribution to the client's rehabilitation plan, and 4) there is a reasonable expectation that the client will follow through with the planned treatment. Written verification of client eligibility was made by the referring caseworker during the referral process. The number of MH outpatients served rose over a two year period to approximately 250 and has since remained relatively stable by periodic freezes on acceptance of new clients, together with discharges of clients who do not continue to meet the eligibility criteria.

PROGRAM EVALUATION

Over several years, there emerged some significant differences in providing outpatient dental services to individuals with mental illness compared to those with mental retardation. Some of these perceptions of differences, however, may be the result of bias on the part of dental staff accustomed to exclusively serving the client with mental retardation.

The funding for both the MR and MH outpatient programs was provided though use of the institutional budget including payment of dental laboratory fees. No fees were charged to the clients since inability to pay for private services was part of the eligibility criteria.

Client Eligibility

Since mental retardation is a permanent disability, once eligibility for services based upon this disability has been established it will not need verification on a periodic basis. Mental illness, however, is often an intermittent disability and verification is necessary periodically. In this program, application for services for mentally retarded (MR) clients are accepted primarily from local MR agencies and occasionally directly from parents living in the community. Although there is some potential for abuse of eligibility requirements for those parents directly requesting services, it is considered minimal. There have been no requests for services from individuals with mental retardation themselves. In contrast, since eligibility for mental health (MH) clients required more than a psychiatric diagnosis and unavailability of alternative resources, referral through a Mental Health Center caseworker was considered mandatory. This program did not initially have a reverification process and some clients continued to receive care who became ineligible for geographic or other reasons. After three years, a form was sent to all caseworkers for eligibility reverification. This procedure resulted in approximately 20% of the MH census being discharged. Some similar outpatient programs have indicated that eligibility is reverified on each visit or monthly. This appears burdensome to the dental staff. Regardless of the verification procedure or schedule, abuses can occur. One client confided that her counseling services at the Mental Health Center were requested solely to become eligible for dental services. Other clients, especially those that are highly manipulative, can sway a caseworker into referral for dental services even though other resources are available for that client. Clients who are articulate, stylishly dressed and transport themselves in a current model automobile create doubts about their eligibility on the part of the dental staff.

 # Communication

A major problem that surfaced was the difficulty in establishing contact with the typically overloaded referring caseworker. Treatment plans and expectations involve dentist/caseworker agreements as well as dentist/patient agreements. The referring caseworker may understand and agree upon the necessity of dental care for the client but have little understanding at the time of referral what will be involved in meeting the client's dental needs. For the first several years of this program, the dental staff provided all services indicated for the patient with little feedback to the caseworker. In order to acquire caseworker input and/or approval of the planned treatment, a consultation form was completed with a complete treatment plan and forwarded to the caseworker following the initial dental appointment. This procedure has proven burdensome and unworkable. No efficient alternative has been developed at present to assure client, caseworker and dental staff are in agreement to the limitation of the treatment planned and the responsibilities of the client.

The need for dentist/mental health client and dentist/caseworker communication and agreement on treatment goals is altogether different than when serving individuals with mental retardation (MR). Services for the MR client involve only parent/guardian or caseworker communication and agreements on treatment planned. If a MR client were able to negotiate treatment considerations, he/she would most likely be served in other settings; most are resistive to care and many require dental restraints and/or sedation to provide needed services. Although, the community based MH client is not capable of providing for many of his/her critical daily living needs, he/she is almost always capable of communicating his/her desires for dental services, even when these desires are unrealistic for a public dental program to provide. This need to constantly debate provider capabilities with the patient with mental illness is a significant source of frustration for the dental staff.

 # Limitations to Care

The resources available for this program, as with most public programs, are limited and cannot meet the total demand for care. When this pilot program was begun, the array of dental services provided was the same as for MR clients which included all basic dental services except orthodontic treatment. It quickly became apparent that the needs and demands for dental services differed for the MH client. For many clients there is a greater need for both restorative and prosthetic services due to many factors including cariogenic medications, poor oral hygiene and prolonged periods of dental neglect. The need for prosthetic services has a special budgetary impact due to the need for dental laboratory services. After three years, cast restorations were eliminated from the array of services provided MH clients and composite and stainless steel crowns were substituted where full coverage was indicated. Cast restorations are still provided MR clients since the requirement for these restorations is low in this population due to poor oral hygiene, lack of adequate cooperation and other factors. Similarly, cast removable partial dentures were eliminated and all-acrylic partial dentures or all-acrylic with wrought wire clasps were substituted for the MH client. These dentures require a lower laboratory cost and are easier to repair. Removable partial dentures are provided only when a major esthetic or functional advantage is gained. Complete dentures continue to be a significant need for the MH population and constitute a major portion of program and budget time.

The demand for services by the MH client does not necessarily coincide with the dental needs identified by the dentist. There is an exaggerated focus by many of these individuals on esthetic concerns. Demands for fixed partial dentures, cast restorations for esthetic purposes only and even removable partial dentures to replace a single missing posterior tooth are common. Often these demands take total priority in the hierarchy of the patient's concerns even when there are other significant restorative and periodontal needs present. This is in contrast to MR clients who make few demands for care, although occasionally a parent will have unrealistic expectations, especially concerning prosthetic replacement of missing teeth.

A particularly frustrating situation for both the dentist and the client occurs when the patient has a preexisting extensive and expensive prosthesis endangered by caries or other pathology and that cannot be replaced due to budgetary constraints of the outpatient program.

 # Compliance

The percentage of broken and cancelled dental appointments is very high with this population, especially if the client is responsible for his/her own transportation. A recent small survey by a similar program

revealed that 40% of the MH clients failed to complete treatment due to broken and cancelled appointments.[56] This is less of a problem if the client is transported by the caseworker. The MH client often does not have available an extensive family support system common to many MR clients. Conversely, since many of these individuals do provide their own transportation, they often appear at irregular, inappropriate times and frequently ask for unavailable or inappropriate services, sometimes couched in terms of a need for emergency care. Also, there is less tolerance on the part of the dental staff in dealing with the MH client's lack of compliance in oral hygiene and care of prostheses and other issues. This intolerance is generated when, unlike many MR clients, these clients appear so capable in many ways.

IMPLICATIONS FOR FUTURE PROGRAM PLANNING

The following are issues that are vital components to a successful outpatient program for mental health clients regardless of whether the program is institution based, community hospital based or based within a city or county public health dental program.

1. Since the number of clients needing care usually exceeds the dental resources available, a method of allocating these resources is important. If referrals are only accepted from designated sources, such as community mental health centers, an allocation of a certain number of clients from each referring agency based upon total number of clients able to be served may be an equitable system.
2. The conditions of eligibility must be clearly outlined by the dental program and a written verification from the referring caseworker that these requirements have been met must be obtained prior to the first dental appointment. A system of reverification of eligibility must be agreed upon prior to initiating care. This process should not be burdensome for the caseworker or dental staff. An annual reverification appears reasonable. The eligibility criteria listed in the above program description have proven of value. However, eligibility criteria should be developed to meet the limitations for the specific dental care resource.

   If lack of alternative resources is part of the eligibility criteria, the provision of a referral directory listing private and public resources should be provided to all referring agencies and caseworkers.
3. The issue of follow up preventive services must be addressed. If routine prophylaxes and periodic dental examinations following the completion of dental treatment are contemplated, the total number of clients who could be served would need to be reduced. The issue of follow-up care also involves broken or lost prostheses and broken restorations. One suggestion is to discharge all clients once the initial and agreed upon treatment plan has been completed. At this point the caseworker can recommend that the client continue to be provided follow up preventive and treatment services or substitute another client whose rehabilitation needs are more pressing.
4. The limitations of available dental treatment must be clearly stated at the initiation of the program. If resources including supporting laboratory budgets, are limited, it may be appropriate to eliminate the provision of cast restorations, cast removable partial dentures, endodontics for posterior teeth, extraction of non-symptomatic impacted teeth, extensive periodontal surgery or other procedures. Any expectation of provision of emergency services during hours when the clinic is not in operation should be clearly addressed.
5. A method of verifying the treatment plan and obtaining the caseworker's agreement should be developed. This is particularly important in instances where the client's expectations exceed the dental program's ability to provide services. It is important that on the application for services, the caseworker's name is printed or typed and a current telephone number provided.
6. A method of limiting the number of broken appointments must be developed. The inability to keep arranged dental appointments is but one dysfunctional behavior exhibited by many of these clients. It is emotionally wearing on the dental staff to be judgmental in the face of the many real and often dramatic difficulties in daily living arrangements experienced by these individuals. Yet multiple broken appointments have a significant negative impact on the availability of care. A limit of two consecutive broken appointments before a client is discharged may be a reasonable one.
7. Some agreement should be made for instances where client eligibility changes prior to completion of treatment. A client may move to a non-served geographic area or temporarily cease to attend the mental health center program.

8. Client transportation is an important aspect of the problem of broken dental appointments. It is quite helpful if the caseworker or designee transports the client to the dental program. This is particularly important when the client is experiencing an exacerbation of dysfunctional behavior.
9. The arrangements for funding and client fees for services is outside of the scope of this discussion since each would be individual to a specific dental resource. However, whatever fee arrangement is expected should be clearly communicated at the initiation of treatment. This is very important when dental laboratory fees are involved or when a consultant fee is necessary. An example of the latter is when a surgical procedure unexpectedly exceeds the capabilities of a general dentist.

CONCLUSION

It is likely that the demand for dental services for the community placed individual with mental illness will dramatically increase over the next decade. Many state and local agencies have been reluctant to initiate programs to meet the dental needs of these clients due to the many difficulties in providing other services to this population. Indeed, these difficulties are real and often monumental. Yet, with sound planning, clear communication, and carefully drawn limits to services provided, successful efforts can be made to alleviate the dramatic dental neglect experienced by so many of these individuals.

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