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# ALCOHOLISM IN ELDERLY MEN: A SURVEY OF A GENERAL MEDICAL WARD

Marc A. Schuckit and Patricia L. Miller  
*Department of Psychiatry and Behavioral Sciences  
University of Washington  
and Alcoholism and Drug Abuse Institute  
Seattle, Washington 98195*

## INTRODUCTION

Drinking problems in older people have received much less attention than is deserved, a discrepancy partly explained by two factors. First, analyses of general population drinking patterns<sup>1-3</sup> reveal that the percentage of drinkers, especially heavy drinkers, decreases with advancing age, so that only 45% of people aged 65 and over are drinkers, as compared to 71% of those aged 30-49. There is a parallel decrease in the prevalence of alcohol problems after age 65.<sup>4</sup>

Second, the natural history of alcoholism results in attrition from the ranks of the young alcoholic. Many alcoholics tend to die young from cancer, cardiovascular disease, accidents, and suicide.<sup>5-7</sup> At the same time, there is a substantial rate of spontaneous remission for alcoholism. It has been estimated that more than one third of a group of alcoholics can be expected to permanently stop their problem drinking at some time during their career.<sup>8-10</sup> The effect of both early death and spontaneous remission is that a high percentage of alcoholics (the exact percentage being unknown) will not be found in the ranks of the 60-90-year-old problem drinkers.

Probably related to these factors, most surveys of the prevalence of alcoholism tend to ignore the individual over age 60.<sup>2</sup> Without a high level of awareness of the problem, health professionals tend to miss the diagnosis of alcoholism more often in geriatric populations than in younger ones.<sup>12</sup> Families often try to hide the older drinking relative,<sup>13</sup> and the alcoholic may be reluctant to admit to his problem.<sup>14</sup> An additional difficulty is that geriatric patients tend to receive care from several different agencies that communicate poorly with one another. Thus, several different people may have picked up hints of alcoholism, but no one put the entire picture together and made a diagnosis.<sup>2</sup>

The result is that we don't know the actual rate of alcoholism in elderly people. Numerous attempts have been made to answer this question, but the figures given must be interpreted in light of the definition of alcoholism used, the survey methods, and the population under study.

The first approach to establish prevalence comes from surveys of general populations, which usually base their diagnosis on either alcohol problems or alcohol intake. Bailey *et al.*<sup>15</sup> and Siassi *et al.*<sup>16</sup> have estimated the rate of alcoholism to be from 2 to 10% of the general elderly population, with higher rates for widowers and people who are in difficulty with the police.

A second approach is to look at patients in treatment. Reviews of nursing home populations<sup>17,18</sup> indicate that alcoholism exists in about 20%; studies of psychiatrically ill older patients show a rate of alcoholism of between 5 and 50%;<sup>19-25</sup> and surveys of general medical wards indicate a 10% rate of alcoholism<sup>26-28</sup> (as compared to 15-30% alcoholics among younger medical inpatients);<sup>29,30</sup> whereas between 5 and 15% of older medical outpatients have been estimated to be alcoholic.<sup>20,31</sup> It has also been proposed that about 10% of alcoholics in treatment are age 60 or over.<sup>12,32,33</sup>

Studies of geriatric alcoholics have raised some relevant questions about the possibility of diagnostic subtypes. One group of investigators feels that the elderly alcoholic is probably the young alcoholic grown old,<sup>2,14,34,35</sup> whereas another group<sup>4,18,36</sup> feels that old-age alcoholism is primarily a response to the medical problems and environmental difficulties seen in elderly patients. In one study,<sup>36,37</sup> at least one third of a group of old-age alcoholics in San Francisco had begun abusing alcohol after age 60.

Another rubric divides alcoholics based on the presence or absence of an organic brain syndrome (OBS). The organic syndrome is common in alcoholics; it has perhaps been seen in more than one third of those studied.<sup>22</sup> Compared to alcoholics without OBS, the organically impaired alcoholic is younger,<sup>22,23</sup> has a higher rate of nursing needs,<sup>22</sup> and has an elevated 2-year mortality rate.<sup>22,23,25</sup>

The demographic characteristics and alcoholic course of the elderly alcoholic have been compared to those of other old-age patients. As opposed to the old-age *psychiatric* patients, the alcoholic more frequently lives alone,<sup>23</sup> is younger,<sup>23,25</sup> and more frequently reports multiple marriages.<sup>23</sup> When compared to the geriatric *medical* patient, the elderly alcoholic is also younger, more isolated, has been married more times,<sup>38,39</sup> shows a *better* employment record,<sup>40</sup> a twofold higher rate of organic brain disease,<sup>22,41</sup> and more often reports a history of drug addiction and less frequently a history of cardiac disease than is true for the older medical patient.<sup>42</sup> Compared to the *younger alcoholic*, the geriatric alcohol abuser is much less likely to show evidence of an obvious personality disorder.<sup>12</sup>

There is relatively little information on the treatment of the geriatric alcoholic, because the older alcohol abuser is likely to be left out of treatment reviews for both geriatric and alcoholic patients.<sup>44,45</sup> Most authors feel, without strong evidence, that the social and medical problems of the geriatric alcoholic require special care,<sup>2,12,19</sup> and some authors believe that many medical facilities are not equipped to handle the geriatric alcoholic.<sup>2</sup> One central need of the geriatric alcoholic is excellent medical care, due to his age with its lack of physical reserves. It would seem that any facility that has good medical care and the opportunity to offer social work help, along with occupational and/or recreational therapy, should be able to deal effectively with the geriatric alcoholic.

With this literature review as a background, we have visited the medical wards at the La Jolla Veterans Administration Hospital to determine the rate of alcoholism in geriatric patients and to characterize the course of alcoholism once present.

#### METHODS

The subjects were 113 consecutive male patients aged 65 and over who were admitted to the acute medical wards of the La Jolla Veterans Administration Hospital between November 1974 and February 1975. Excluded from the study were all patients who, according to their physicians, were too medically ill to participate in the hour-long interview. Each eligible patient was given a structured interview by trained interviewers within 5 days of hospital admission. The rationale behind these procedures has been presented previously.<sup>45</sup> The interview included identifying data, demography, drug/alcohol history, psychiatric history, family history, and organicity tests.

The interview was aimed at establishing the patient's psychiatric diagnosis by means of preset research criteria for psychiatric illness. The organicity tests established the presence of obvious organic impairment rather than subtle organicity

changes. The tests used were the Memory-for-Designs test,<sup>45,48,49</sup> the Pfeiffer test,<sup>50</sup> the Mental Status questionnaire (MSQ),<sup>45,49,51</sup> and the Face-Hand-test (FHT).<sup>48,52,53</sup>

The patient interview took about 60 min, including 15 min of organicity testing. The series of questions was easily adapted into two 30-min sessions for patients who found the protocol too strenuous. Each patient's chart was reviewed for basic demographic information, past and present physical and mental status, medications, and drug/alcohol history.

In addition, a resource person was sought for each patient. The resource person was generally the spouse, but in cases where the spouse was unavailable, another relative or close friend was used. The 15-min resource person interview covered most of the same questions presented to the patient in order to validate the information given by the patient.

Psychiatric diagnosis followed the basic paradigm presented by Feighner *et al.*<sup>54</sup> and Woodruff *et al.*<sup>55</sup> The specific criteria have been presented previously.<sup>45</sup> The diagnosis of alcoholism was assigned when any one of the following difficulties occurred in relation to alcohol: a job layoff or firing or inability to carry out usual activities; a marital separation or divorce; two or more nontraffic arrests; told by a physician that alcohol had actually harmed health. The age of onset of alcoholism was the year of the first major alcohol life problem, while age of cessation of alcoholism was the year in which the last major problem occurred or the age at which the individual said he stopped heavy drinking, whichever came chronologically later.

The diagnosis of OBS was made in the presence of memory impairment, intellectual deterioration, confusion, disorientation, and impaired judgement, along with possible hallucinations and/or delusions.<sup>56,57</sup> The one identifiable subtype seen in the present sample was atherosclerotic dementia. This OBS occurs in the presence of organic vascular disease of the heart or brain and follows a fluctuating course, that is, periods of OBS (especially at night) that alternate with normality.<sup>58</sup>

Statistical analyses were performed by chi-square test with Yates correction for continuity for categorical data. A two-tailed *t* test was used to compare group means. The data represented in the Tables may involve small changes in the number of men used to calculate the percentages, because, in relatively rare instances, one or two men may have had incomplete data on a particular item.

## RESULTS

### *Major Findings*

During the 14 weeks that ended on February 13, 1975, 194 patients aged 65 and over were admitted to the acute medical wards of the hospital. Of these 194, 21% were too weak to be interviewed, and 8% were discharged too soon after admission to be seen, which left 138 eligible patients. Of these 138, five (4%) refused to be interviewed. At the time of preparation for this report, 113 of the 133 interviewed patients had been completely evaluated and are the focus of this study. No known bias existed in selecting our 113 study patients. Eighty-six percent of the 113 had a resource person interviewed; for 14%, there was no resource person available, or the patient refused to have a resource person contacted, or the resource person refused to be seen.

The sample included 20 alcoholics, who accounted for 18% of the patients. No alcoholic was in withdrawal at the time of interview. Of these 20, 11 (55%) had stopped drinking at some point during their career, had no alcohol problems in the 6 months prior to hospitalization, and will be called the *inactive alcoholics*. The

average inactive alcoholic stopped problem drinking after 23 years of difficulties (a range of 5-40 years) and had been free from alcohol problems for an average of 11 years (with a range of 4-25 years) prior to the interview. Three of the 11 inactive alcoholics still drank but denied any recent problems; this history was corroborated by the resource person for two of the three (a resource person for the third was unavailable). In all, resource person corroboration was obtained for 73% of all inactive alcoholics.

The major analyses of this study involve comparing alcoholics (group 1) with other psychiatrically ill patients on medical floors (groups 2-29 patients, including 21 with an OBS) and with 64 medical patients without diagnosable psychiatric illness (group 3). The active and inactive alcoholics are combined to give one alcoholic group with a larger number of patients. On most factors, the two alcoholic groups were quite similar; differences that did occur are reported separately.

The primary psychiatric diagnoses for group 2 were analyzed with the psychiatric diagnostic criteria outlined under METHODS. The two most frequent diagnoses in group 2 were OBS (73%) and affective disorder (17%), while one patient had anxiety neuroses, one abused drugs, and one had late paraphrenia. The OBS categories in group 2 included 42% with atherosclerotic dementia and 31% with an OBS that could not be classified into any of the major subtypes. Twenty-five percent of the alcoholics had a secondary diagnosis of OBS.

The present medical charts of the alcoholic and group-2 men were reviewed to determine if the psychiatric illness had been noted by the patient's physician. Seventy-eight percent of the alcoholics had been correctly diagnosed, but only 48% of the OBSs in group 2 were noted in the charts. In reviewing medical records, one had the feeling that the physician may have noticed the clouded thinking of the patient but chose not to specifically diagnose or treat it. Of the remaining psychiatric diagnoses for group 2, only 12% had been correctly noted by the physician.

TABLE 1 describes the psychiatric histories, drinking histories, and present mental status of groups 1, 2, and 3. The histories of alcohol-related problems were, of course, quite different among the groups. The mean number of alcohol problems was computed by placing a man in a particular problem category if he ever reported that difficulty. The mean is the average number of categories in which the men in groups 1, 2, or 3 had problems and does not reflect the number of times they may have had difficulty within a problem category.

The specific problem scores were much higher for alcoholics than for the other two groups, and in most instances, the rates for the nine active alcoholics were higher than those for the 11 inactive men. Thus, the 70% figure for health problems for the whole group of alcoholics included 89% for the active versus 55% for the inactive; the 45% rate of marital problems included 56% for the active and 36% for the inactive; the 40% rate of alcohol-related driving problems included 44% for the active and 36% for the inactive; and the 60% rate of "other" problems included a 67% problem rate for the active and a 55% rate for the inactive. However, in two instances, the inactive group had a higher rate of problems: the 55% rate of nontraffic police problems included a 33% rate for active and a 73% rate for inactive men; the 30% rate of serious job problems included 11% for the active and 45% for the inactive men.

The police (other than driving), job, health, and marital difficulties in the Table follow the criteria outlined for the diagnosis of alcoholism under METHODS. Driving problem (two or more alcohol related traffic arrests) and "other problem" categories represent less severe difficulties that were not used to establish a diagnosis of alcoholism.

The average number of days per week of drinking and the mean number of drinks per 7-day week were based on recent practices and were different for the active and

inactive subgroups. The active group drank between 5 and 6 days a week, with an average of five drinks per drinking day. The inactive group only had three men who reported drinking in the past 6 months, and they were drinking on an average of 1 day per week with a mean of two drinks per drinking day.

The findings on smoking generally paralleled those on alcohol. Alcoholics were

TABLE I  
PSYCHIATRIC, ALCOHOLIC, AND SMOKING HISTORIES BY  
PSYCHIATRIC DIAGNOSTIC GROUP

	Group 1: Alcoholic	Group 2: OBS and Other	Group 3: No Illness
Number	20	29	64
Past psychiatric hospitalization (%)	10	10	9
Ever attempt suicide (%)	5	0	2
Signs of OBS:			
Mean Pfeiffer score*	2.3	3.2	1.2
Mean MSQ score	1.2	1.9	0.6
Mean MFD score	4.9	6.2	4.0
% With 1+ FHT errors	10	42	15
Alcohol History			
Ever in jail (%)†	65	28	23
Severe problems (%)			
Police; nontraffic	55	0	0
Job	30	0	0
Health	70	0	0
Marital	45	0	0
Less severe problems (%)			
Driving	40	0	3
Other	60	10	0
Mean number problems‡	3.0	1.0	1.0
Mean days/week drink over last 6 months for drinkers§	6.0	2.7	3.6
Mean drinks/day over last 6 months for drinkers¶	4.0	2.0	1.8
Smoking history last 6 months (%)			
5 or Less cigarettes per day	60	73	87
5-19 Cigarettes per day	15	10	8
1 or More packs per day	25	17	5

\* Difference in group 1 vs group 3 significant at  $p < 0.01$  ( $t = 3.25$ ).

† Difference in group 1 vs group 2 significant at  $p < 0.01$  ( $\chi^2 = 6.77$ ) and group 1 vs group 3  $p < 0.001$  ( $\chi^2 = 11.85$ ).

‡ Difference in group 1 vs group 2 significant at  $p < 0.01$  ( $t = 2.83$ ); group 1 vs group 3  $p < 0.01$  ( $t = 3.36$ ).

§ Difference group 1 vs group 2 significant at  $p < 0.001$  ( $t = 3.81$ ); group 1 vs group 3  $p < 0.001$  ( $t = 5.60$ ).

¶ Difference group 1 vs group 2 significant at  $p < 0.01$  ( $t = 3.79$ ); group 1 vs group 3  $p < 0.01$  ( $t = 3.80$ ).

|| Difference group 1 vs group 3 significant at  $p < 0.02$  ( $\chi^2 = 6.46$ ) for 5/d at  $p < 0.02$  ( $\chi^2 = 5.58$ ) at 1 pk/d.

less likely to abstain from smoking and more likely to be heavy smokers as compared to men in groups 2 and 3. This finding was especially marked for the active alcoholics, 44% of whom smoked one or more packs per day as compared to 10% of the inactive men.

All three groups showed equal chances of having been hospitalized in a psychiatric facility, but suicide attempt rates were slightly higher for the alcoholic group. The alcoholics consistently showed a higher level of organic test impairment than did the normal group. Because group 2 contains mostly OBS patients, it should be recognized that the OBS subgroup had even higher rates of impairment on these tests, with a Pfeiffer score of 3.7, an MSQ score of 7.9, and an FHT error percentage of 53%. The FHT score was the percentage of men scoring one or more errors during testing; this test was the only one in which the alcoholics had lowered error scores than did the normals.

The family psychiatric history of each patient was also reviewed. In general, psychiatric problems run true within families: that is, the same or related illness tend to isolate in family groups.<sup>59</sup> The elderly patients in this study often could not give an accurate family history, because they had limited contact with most family members, and many others had died long ago. The findings on the familial rate of psychiatric illness in these patients, therefore, are lower than would have been expected from the other studies of psychiatric patients.

The rates of illness given are based on the percentage of the relatives at risk who were ill; thus, if there were a total of 50 brothers for a group of 25 men, the rate of a brother's illness for the group would reflect the percentage of the 50 brothers who were ill. Alcoholism was seen in about 5% of the fathers and brothers for groups 1 and 3, in 9% of the sisters for group 1 and 2% for group 2, and in 6% of the children of group 2 and 2% of group 3. Affective disorder was seen equally in the relatives of the three study groups, with a rate of about 3% of the relatives being ill. Old-age dementias were also seen equally, with an overall rate of about 5% of relatives for all three groups.

The clinical pictures of groups 1, 2, and 3 are presented in TABLE 2. The racial characteristics of the three groups were quite similar, and compared to the other two groups, the alcoholics were younger. Alcoholics had been married more times and at the time of interview were much likely to be separated or divorced. Religious characteristics were not greatly different for groups 1, 2, and 3, although there was a trend for more alcoholics to be Catholic. On education level, alcoholics tended to have completed more schooling than did the other two groups, a difference especially apparent when groups 1 and 2 are compared. The occupation paralleled the education level, with more alcoholics being found in the professional or managerial categories and less in the semiskilled or unskilled occupations.

Alcoholics also gave a history of greater social isolation: more of them lived alone, and fewer lived with a spouse than did groups 2 or 3. In addition, alcoholics were less likely to have lived at their prehospital address for 5 or more years than was true for other patients.

The primary medical diagnoses of groups 1, 2, and 3 were also studied. While the three groups tended to be similar on most diagnostic categories, there were two exceptions. Twenty-five percent of the alcoholics reported chronic obstructive lung disease, whereas this was true for only 14% of group 2 and for 17% of group 3. Also, whereas only 15% of the alcoholics had a primary admitting diagnosis related to heart disease, the same was true for 34% of group 2 and for 25% of group 3. The three study groups tended to have similar rates of pneumonia (about 13%), cancer (between 25 and 30%), and other diagnostic categories (e.g., anemia and diabetes).

TABLE 2  
BACKGROUND CHARACTERISTICS OF THE THREE PSYCHIATRIC  
DIAGNOSTIC GROUPS

	Group 1: Alcoholic	Group 2: OBS and Other	Group 3: No Illness
Number	20	29	64
Demography			
Mean age*	70.8	77.6	76.7
Mean no. marriages	1.9	1.5	1.6
% Caucasian	95	90	97
Present Marital Status (%):			
Married	40	63	61
Separated or divorced†	40	3	17
Widow	20	17	14
Single	0	17	8
Religion (%)			
Catholic	25	19	14
Protestant	60	69	61
Other	15	12	25
Education Completed (%):			
Less than 8th grade	10	35	14
8th-12th grade	60	54	58
Some college	30	11	28
Occupation (%):			
Professional or managerial	25	14	9
Administrative or clinical	40	21	39
Skilled manual	30	44	39
Semiskilled or unskilled	5	21	13
Social Contacts			
Presently living with (%):			
No one (alone)	33	24	25
Spouse	44	66	58
Persons other than spouse	33	10	17
% Living at present address 5+ years	25	50	48

\* Difference between group 1 and group 2 significant at  $p < 0.01$  ( $t = 3.53$ ); group 1 vs group 2 at  $p < 0.01$  ( $t = 3.43$ ).

† Difference group 1 vs group 2 significant at  $p < 0.01$  ( $X^2 = 8.25$ ); group 1 vs group 3  $p < 0.05$  ( $X^2 = 5.38$ ).

#### *Ancillary Evaluation*

In the course of evaluating the major findings, several other analyses were performed: a comparison of alcoholics with and without OBS, a comparison of alcoholics who began their alcohol problems at age 40 or younger with those whose onset was later, and an analysis of our major findings in a previously studied small group of geriatric patients. The results of these three evaluations are made tenuous by



the small number of patients, but the trends demonstrated are of interest and are consistent with the literature.

First, there has been a good deal of discussion in the literature about the differences between elderly alcoholics who show an OBS and those who exhibit none. We have compared the trends in the five alcoholics who showed an OBS (including three active alcoholics) with the 15 alcoholics with no organic brain disorder (including six active alcoholics). The OBS alcoholics were slightly younger (70 vs 72 years), reported less education (40% with less than an 8th-grade education vs 0%), lower occupational level (no OBS patients in the professional or managerial occupational group vs 33% for the non-OBS alcoholics), and had a greater tendency to live alone (60 vs 23%). The other major demographic findings were not different for the two groups. Clinical findings, of course, were quite different, with the expected higher scores on organic brain testing for the OBS versus the non-OBS alcoholics. There were also some differences in the alcoholic background: whereas about the same percentage of the OBS and the non-OBS alcoholics had been in jail and had both reported a mean number of alcohol problems of 3.0, the OBS patients reported less nontraffic police problems (40 vs 60%), less job problems (0 vs 40%), and a much higher rate of serious health problems (100 vs 60%). There were no other major differences in drinking history between the two groups, and smoking histories were generally similar.

Second, the sample of alcoholics tended to divide into nine men with an onset of their drinking problems at age 40 or younger [including seven (80%) inactive alcoholics], called the early-onset (EO) group, and 11 men with an onset of alcohol problems at age 41 or older (including two inactive alcoholics), labeled the late-onset (LO) group. In the LO group, seven men began their drinking problems in their 40s, two while they were in their 50s, and two when they were age 60 or above.

It was possible to compare the EO alcoholics with the LO alcoholics on several demographic and drinking-related items. The LO man was slightly younger (70 vs 72 years), was more likely to be separated or divorced at the time of interview (55 vs 22%), but less likely to be widowed (9 vs 33%). The LO patient was more likely to live alone (44 vs 22%) but was just as likely as the EO patient to have lived in the same abode for 5 or more years prior to the study. There was no difference between EO and LO patients for occupation or educational level. A review of psychiatric histories showed that the LO man had a higher rate of an OBS at the time of the study (36 vs 11%), was much more likely to be a smoker (60 vs 22%), but was less likely to have spent some time in jail (55 vs 78%). The LO man had a greater chance of reporting drinking problems, including driving difficulties (55 vs 22%), serious health difficulties (91 vs 44%), and marital difficulties (64 vs 22%). The EO group reported a slightly higher job problem rate than did the LO group (33 vs 27%), but for police problems (other than driving), both groups were very similar (56 vs 55%).

Finally, because we were concerned with the small number of alcoholics studied in this report, we checked to see if another small sample previously investigated in the same hospital had similar results. Thus, the 50 consecutive medical and surgical patients studied in a 1974 investigation of unrecognized psychiatric illness at La Jolla Veterans Administration Hospital<sup>45</sup> were divided into groups 1, 2, and 3 based on the same criteria as were used in the present investigation. The 1974 patients differed slightly from the present group of patients, in that in the earlier investigation, all men whose physicians had already noted a psychiatric illness were not included, and no resource person was interviewed. With these exceptions, the patients were interviewed with the same form, and the study was conducted with a similar format.

For the 1974 study, there were seven alcoholics. Three of the seven (43%) had stopped drinking and were thus inactive alcoholics. All three of these inactive

alcoholics had serious alcohol problems (each with difficulties in at least three of the four major areas) and had been involved in problem drinking for 10 years, 20 years, and 40 years, respectively.

It was possible to compare the clinical history of the seven alcoholics with a psychiatrically healthy group similar to group 3. (There were too few OBS and affective disorder patients to allow good comparison with the present group 2.) As was true in the present investigation, the alcoholics reported higher levels of impairment on almost all organic tests: the mean MSQ score was 1.7 for the alcoholics versus 0.7 for the normals, the FHT error score was 58% for the alcoholics versus 32% for the normals, and the error score on the Kaplan survey (very similar to the Pfeiffer) showed a mean of three errors for the alcoholics and 1.4 errors for the normals. The alcoholics more frequently reported a history of having been in jail (71 vs 19%) and a level of alcohol problems and drinking frequency and quantity that were much higher than for the psychiatrically normal group.

Also similar to the present study was the fact that almost all patients were White, that the alcoholics were slightly younger (73 vs 74 years), less often married (42 vs 69%), more often divorced (28 vs 8%), less frequently lived with a spouse (42 vs 69%), and had a higher level of education (28 vs 22% reporting some college education). There were no other major differences, including no differences in religious preferences.

#### DISCUSSION

The data must be interpreted from the perspective of our sample selection and definitions. We have studied a general medical ward at a Veterans Administration hospital, defining alcoholism by the occurrence of alcohol-related life problems. We are dealing with chronic alcoholism, not a temporary increase in alcohol intake at a time of stress.

Our definition of alcoholism allowed us to gauge the age of onset and the age of cessation of alcohol problems and, thus, offers a shorthand for determining major drinking history milestones. Our data were affected by the combination of the active and inactive alcoholic groups, but this combination was justified because their demographic characteristics were more alike than different. Although one must be cautious in accepting data from such a small sample of alcoholics, the major observations are supported by analyses of the same information in the smaller 1974 study.

The rate of alcoholism in this population was 18%, and almost 80% of the alcoholics had been properly diagnosed by their physicians. This alcoholism rate is higher than the 2-10% estimated for the general elderly population<sup>15,16</sup> and is higher than the 10% rate in the elderly in general medical wards.<sup>26-28</sup> However, it is in the same range as the 20% figure cited for nursing homes<sup>17,18</sup> and is within the range of the proposed alcoholism rates for psychiatrically ill older populations.<sup>19-25</sup> Thus, a figure that approaches 20% for the prevalence of alcoholism in old-age patients in treatment for either medical or psychiatric reasons would seem reasonable.

This study indicates a high rate of remission of alcoholism. It must be recognized that we are studying a select sample, that is, alcoholics who either began their heavy drinking in their old age or who were fortunate enough to live into advanced years. The findings here are consistent with the literature on the moderate rate of remission in the general alcoholic population.<sup>8-10</sup> Approximately one half of both our study group and of the 1974 patients were no longer alcoholic by the time of interview, a finding corroborated by the resource persons. These alcoholics were not temporary, benign, or borderline cases, because they presented with many years of heavy

drinking, during which they incurred severe problems before giving up their alcoholism.

The active and inactive alcoholics had several similarities. There were no major differences between the two groups for past psychiatric histories or demographic characteristics, such as age, race, marital status, education or occupation, or medical illness history. Nor was there any major difference between the groups on the mean scores on organic brain testing.

However, the active and inactive alcoholic men did differ on their alcoholic histories. Almost all inactive alcoholics had an early age of onset; the inactive vs active and the EO vs LO divisions of our alcoholics outline almost identical subgroups. The inactive (and EO) men reported an increased rate of job and police problems, whereas the active alcoholics (with a later onset of drinking problems, average age 50) had a much higher rate of health and marital difficulties related to their drinking. Active drinking during the medically vulnerable older decades may make one especially prone to medical disorders.

In addition, the inactive alcoholics, as a matter of definition, had much lower rates of drinking in the 6 months prior to the study and smoked significantly less than did the active ones. This last finding adds to the general literature, which shows a high association between heavy drinking and heavy smoking,<sup>60</sup> and indicates the possibility that only actively drinking alcoholics are heavy smokers.

The alcoholics do contain a subgroup with a later age of onset; half of our population began drinking after age 40. According to Amark, 80% of the age of risk for alcoholism has already past by that age.<sup>61</sup> Ten percent of our population began alcoholism after the age of 60, a finding lower than the one-third rate reported by the study in San Francisco.<sup>36,37</sup>

The LO alcoholic may represent a secondary type of alcoholism, perhaps related to affective disorder, because previous studies have shown that the depressive alcoholic has a later age of onset.<sup>62,63</sup> A study that compares the EO and LO alcoholic in greater depth may reveal more about the characteristics and causes of alcoholism in elderly men and more about the causation and course of alcohol abuse in general.

The 25% rate of OBS in elderly alcoholics is in the same general range as that reported in another investigation.<sup>22</sup> The OBS versus non-OBS dichotomy did not parallel the active versus inactive divisions but had a slight correlation with the EO versus LO subtypes; 30% of the LO and 11% of the EO alcoholics had OBSs. The OBS alcoholics were younger than the non-OBS and had a lower level of occupation and education. The slightly increased rate of OBS in LO alcoholics is consistent with our findings of increased health problems in the older-onset alcohol abuser. (The health problems considered in the earlier analyses did not include confusion, disorientation, and other factors.) In this small study, it would appear that OBSs are most likely to occur in alcoholics who have had lower achievement in the past but a later age of onset of their problem drinking. The major importance of the division of alcoholics into OBS and non-OBS subgroups will probably come during the follow-up; it is likely that there will be a higher rate of mortality in the OBS subgroup.<sup>22,23,25</sup>

The data on the pooled sample of active and inactive alcoholics indicate that the geriatric alcohol abuser is clinically distinct from other old-age psychiatric or medical patients, a finding in agreement with the literature.<sup>25,38-40,42</sup> When compared to psychiatric patients (group 2) and medical patients (group 3), the alcoholic in both the present and the 1974 study is younger, more likely to report multiple marriages, more likely to live alone, and more likely to report suicide attempts and having been in jail. Compared to medical patients, the elderly alcoholic is more likely to report better job or employment records, to show a decreased rate of cardiac disease, and an increased rate of chronic lung disease.

The higher level of education for alcoholics is inconsistent with the literature on the younger alcoholics, which generally reveals him to be a lower achiever both in school and in job.<sup>64,65</sup> One explanation for this finding is that in a publicly funded hospital, such as a Veterans Administration facility, one is not likely to find the average person who has functioned well enough on his job to make a good living (with the exception, of course, of the military). Thus, in these hospitals, one is likely to see people with high education or job levels who began failing in performance and sliding down the social and economic scales, as might be expected of alcoholics.

The decreased rate of cardiac disease in alcoholics is also of interest. The literature gives conflicting results on whether the rate of cardiac morbidity in alcoholics is different from that of the general population.<sup>66</sup> It might be that so many alcoholics die at younger ages from accidents and suicides, in addition to cancer and lung disorders, that fewer of them remain at risk for cardiac disorders.

#### CONCLUSIONS

Alcoholism is relatively common among old-age medical patients, and the elderly alcoholic has several characteristics that differentiate him from other medical and psychiatric patients. The physician should have a high index of suspicion for alcoholism when he is dealing with the elderly patient who presents a combination of the following characteristics: he is younger than the average old-age patient in that institution, reports multiple marriages, lives alone, has chronic lung disease, gives a history of having been in jail, and, perhaps, reports a higher level of job or education than one would expect for the population being served by that institution. This prototype can serve as a warning that alcohol problems may presently or in the past exist, but this information could not be used to actually establish a diagnosis of alcoholism. The physicians at the present hospital did remarkably well in identifying the active alcoholics.

Geriatric alcoholics are not a homogeneous group and contain EO and LO subpopulations, divisions that would appear to be worth further study. We plan to gather a larger population of subjects and to perform a follow-up study to further delineate the prognostic importance of such findings as organic brain disease in these populations.

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