

COMPdata Monthly Monitor - Montana
November 2005
Alzheimer's Disease and Senile Dementia

INTRODUCTION

Alzheimer's Disease is a progressive brain disorder in which clumps of protein fragments called amyloid plaques accumulate outside of the brain's nerve cells and/or tangles of protein form inside the brain cells. Researchers believe that whatever triggers the disease begins to damage the brain years before symptoms appear.¹ Eventually, the disease destroys a person's memory and ability to learn, make judgments, and carry out daily activities. Increasing age is the greatest risk factor for Alzheimer's, with one in ten individuals over age 65 and nearly half over 85 affected.²

According to the U.S. Census, the population of persons 65 and older will double by the year 2030,³ and this continued increase brings the impact of Alzheimer's Disease and other elderly dementias into sharp focus, particularly if a patient population has a high rate of Medicare patients. A key study in the Journal of the American Medical Association found that Medicare costs are more than twice as high for conditions such as coronary heart disease, congestive heart failure, diabetes, or chronic obstructive pulmonary disease when the patient has co-morbid dementia.⁴

COMPdata STATISTICS ON ALZHEIMER'S AND OTHER SENILE DEMENTIA
INPATIENTS IN MONTANA HOSPITALS

(Note: All of the following inpatient statistics exclude newborns and obstetric cases – Major Diagnostic Categories 14 and 15.)

Table 1 - Total Montana Inpatients
Excludes MDCs 14 & 15

	2001	2004	% Change 2001 to 2004
	Discharges	Discharges	
Total Montana Patients	81,510	82,004	0.6

Table 2 - All Alzheimer's Inpatients
ICD-9 diagnosis code 331.0 (Excludes MDCs 14 & 15)

	2001		2004		% Change 2001 to 2004
	Discharges	% of All Discharges	Discharges	% of All Discharges	
All Diagnoses	1,073	1.3	1,042	1.3	-2.9
Principal Diagnosis	143	0.2	106	0.1	-25.9
Other Diagnoses	930	1.1	936	1.1	0.6

Table 3 - All Senile Dementia Inpatients
ICD-9 diagnosis codes 290.0 to 290.9 (Excludes MDCs 14 & 15)

	2001		2004		% Change 2001 to 2004
	Discharges	% of All Discharges	Discharges	% of All Discharges	
All Diagnoses	649	0.8	631	0.8	-2.8
Principal Diagnosis	74	0.1	72	0.1	-2.7
Other Diagnoses	581	0.7	566	0.7	-2.6

Tables 1-3 provide 2001 and 2004 utilization statistics for all Montana and all Alzheimer's and senile dementia inpatients. Some key findings in these tables are:

- For the great majority of patients, the diagnosis of Alzheimer's or dementia is secondary to another condition. This highlights the complexity of managing many different types of patients who may have a diminished capacity for following patient care instructions.
- There was a decline in Alzheimer's as a principal diagnosis but a slight increase in Alzheimer's as a secondary diagnosis (Table 2).
- By contrast, elderly dementia was diagnosed less often in 2004 than it was in 2001 (Table 3), and these declines occurred for all categories of diagnosis.
- The decline in elderly dementia cases may be due in part to the improvements in diagnostic procedures for Alzheimer's patients. Some patients that may have been classified as having dementia in the past are now determined to have Alzheimer's.

Table 4 - Patients with Elderly Dementias
ICD-9 principal diagnosis codes 290.0 to 290.9 (Excludes MDCs 14 & 15)

ICD-9 Code and Description	Cases	% of Elderly Dementia
290.0 Senile dementia, UNC	15	20.8
290.1 Presenile dementia	0	0
290.2 Senile dementia with delusional or depressive features	5	7.0
290.3 Senile dementia with delirium	13	18.1
290.4 Vascular dementia	39	54.1
290.8 Other specified senile psychotic conditions	0	0
290.9 Unspecified senile psychotic condition	0	0

- Table 4 illustrates the distribution of dementia diagnosis in the state population. Over half of all dementia patients are diagnosed with vascular dementia, a category of dementia subtypes that causes cognitive decline.

Table 5 - Patients with a Alzheimer's Disease and Other Dementias

2004 Inpatient Discharges - (Excludes MDCs 14&15)

ICD-9 diagnosis code for Alzheimer's: 331.0

ICD-9 diagnosis codes for other Elderly Dementias: 290.0 to 290.9

Table 5 – Part I		Alzheimer's	Other Dementia
Admission and Discharge Patterns		Total N = 106 (%)	Total N = 72 (%)
Admission Source	Emergency Room	63.2	65.3
	Transfer from SNF	9.4	8.3
	Physician Referral	22.6	20.8
	Other	4.8	5.6
Admission Type	Emergency	35.9	48.6
	Urgent	51.9	36.1
	Elective	12.2	15.3
Discharge Status	Routine to Home	25.5	34.7
	To Skilled Nursing	53.8	43.1
	To Home Health	5.7	8.3
	To Intermediate Care	6.6	6.9
	To Another Institution	1.9	2.8
	Other	6.5	4.2
Hospital Location	Other Urban	50.0	51.4
	Rural	50.0	48.6

Table 5 – Part II Patient Characteristics		Alzheimer's	Other Dementia
		Total N = 106 (%)	Total N = 72 (%)
Gender	Female	56.6	69.4
	Male	43.4	30.6
Primary Payer	Medicare	78.3	81.9
	Commercial Ins	15.0	16.7
	Other	6.7	1.4
Age	Under 65 Years	0.9	4.2
	65 to 84 Years	67.0	68.0
	85 Years and over	32.1	27.8
	Average Age	81.5	80.3
Avg Length of Stay		6.3	6.3
Avg Total Charge		\$8,044	\$9,194

- At the top of Table 5, the admission source data shows that when Alzheimer's or elderly dementia is a primary diagnosis, admissions are most commonly from the emergency room.
- About one-quarter of Alzheimer's are discharged to their homes; they are twice as likely to be discharged to a skilled nursing facility (SNF).
- Since risk of Alzheimer's and elderly dementia increases with age, it is not surprising to note that nearly 60% of all patients are female. The average age of a primary diagnosis is over 80 years, and females are more likely to reach that age.

MONTANA STATISTICS FROM COMPdata

All of the Montana patient statistics were derived from MHA's COMPdata. We encourage you to use COMPdata to examine your hospital community area(s) regarding Alzheimer's patients so that you might better understand the impact of these patients on your care and treatment of your patient population and the resources needed to diagnose, treat, and manage the Alzheimer's population.

The COMPdata graphing feature can be utilized to examine in a pictorial fashion trends in your state and hospital community area(s) regarding Alzheimer's. Click here to obtain a pie chart that illustrates the distribution of patients with Alzheimer's (as a principal diagnosis) by discharge status:

<http://www.compdatainfo.com/news/monitor/montana/alzgraph.pdf>.

ADDITIONAL INFORMATION

If you would like to develop the COMPdata reports that will provide similar statistics for your hospital or community, a training tool is available to guide you through the process. Click here to obtain the tool:

<http://www.compdatainfo.com/news/monitor/montana/alztool.pdf>. For additional assistance on using the COMPdata system, contact the COMPdata Hotline at compdata@ihastaff.org.

For questions and suggestions regarding the *COMPdata Monthly Monitor*, contact: Tim Shaver, Health Information Analyst at tshaver@ihastaff.org.

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APPENDIX

Alzheimer's Patients:

- Alzheimer's patients could number between 11.3 million and 16 million by the year 2050.⁵
- Alzheimer's patients will live an average of eight years and as many as 20 years after onset of symptoms.⁶
- National direct and indirect costs are at least \$100 billion,⁷ and the average lifetime cost for care of an individual with Alzheimer's is \$174,000.⁷
- Medicare costs are expected to total \$91 billion in 2005 and are expected to grow to \$160 billion by 2010.⁸
- In fiscal year 2005, the federal government estimates spending \$647 million on Alzheimer's research, up from \$20 million in 1980.⁹

SOURCES FOR ADDITIONAL INFORMATION

For Hospitals

The Alzheimer's Disease Education & Referral Center is a service of the National Institute on Aging and provides general information on causes for Alzheimer's Disease as well as treatment and caregiver support. Additionally, the site updates the latest clinical trials information, allowing the health care professional to track progress in the treatment of Alzheimer's and other elderly dementias. The site address is: <http://www.alzheimers.org>.

Alzheimer's Disease can be very difficult to diagnose, and many dementias are difficult to differentiate. Advice and information regarding diagnosis of Alzheimer's can be found at: <http://www.alzheimersdisease.com>. Use the menu bar on the left side of the home page to navigate the site.

For Patients and the Community

The Alzheimer's Association web site at <http://www.alz.org> is a comprehensive collection of the latest facts and figures on Alzheimer's Disease and other elderly dementias. From potential causes to diagnosis to cost impact, the site provides an excellent resource for any patient or caregiver interested in knowing more about this debilitating disease.

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