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DENTAL CARE IN NURSING HOMES

PROCEEDINGS OF A MULTI-DISCIPLINARY CONFERENCE

September 28, 1979

DEPARTMENT OF PREVENTIVE AND COMMUNITY DENTISTRY

College of Dentistry
University of Iowa Iowa City, Iowa

Cosponsored by College of Nursing, Provider #1

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DENTISTRY
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IOWA DEPARTMENT OF HEALTH
AGENCY ON AGING

PUBLISHED BY ARRANGEMENTS WITH:

The Iowa Gerontology Center, Oakdale, Iowa
Dr. Thomas Walz, Director

DENTAL CARE IN NURSING HOMES

ROLES AND EXPECTATIONS OF DENTISTS AND NURSING DIRECTORS

PROCEEDINGS OF

MULTI-DISCIPLINARY CONFERENCE

SEPTEMBER 28, 1979

DEPARTMENT OF PREVENTIVE AND COMMUNITY DENTISTRY
COLLEGE OF DENTISTRY, UNIVERSITY OF IOWA
IOWA CITY, IOWA 52242

SPONSORED BY THE COLLEGE OF NURSING (PROVIDER #1),
UNIVERSITY OF IOWA

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The Iowa Gerontology Center, Oakdale, Iowa
Dr. Thomas Walz, Director

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PREFACE

Roger Simpson *

This publication contains the proceedings of a one day conference on "Dental Care in Nursing Homes," held September 28, 1979, at the University of Iowa. The Department of Preventive and Community Dentistry at the College of Dentistry, the University of Iowa, planned and conducted the Conference for dentists, dental hygienists, nurses, nursing home directors, and public health officials. A multi-disciplinary planning committee has continued to work on health care needs of the elderly, presenting the first conference on "Geriatric Dentistry" (November 3, 1978).[1] Subsequently, two surveys were undertaken to gather data from Iowa on (1) private dental care of the Elderly and Title XIX, and (2) Nursing Homes (Licensed Care Facilities), oral Health Care and Title XIX.

The results of the Conference on "Geriatric Dentistry" and the Surveys dramatically emphasized the need for an educational effort among health care professionals about oral health care in nursing homes. It became clear that oral health care of elderly in nursing homes is a frustrating health problem. This problem needs to become more of a priority for the patients, the long term care facilities, dentists, nurses, administrators, and most especially those in the political and bureaucratic structures which control funding and policy-making affecting the long term health care of the elderly. Consequently, a conference was scheduled to deal with such issues, involving, as participants, dentists, hygienists, nurses, nursing home administrators, and some persons from the public health sector. The strategy was to design the program to provide information about current needs, some didactic material about oral health problems of elderly, data about equipment and facility problems, information about in-service training of nursing home staff, and an opportunity for leaders of these areas

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1. Simpson, Roger, et al. Geriatric Dentistry (Proceedings of a Multi-Disciplinary Conference). Iowa City: University of Iowa, Iowa Gerontology Center (Oakdale) 1978.

to discuss openly how cooperation can develop and to think creatively about future possibilities for improved health care.

As the conference proceeded, it became evident that there is virtually unanimous agreement about the need for action by all to improve the oral health of the elderly in nursing homes. In addition, it became clear that to accomplish this, there is need for open exchanges among all providers to increase understanding of such areas as: scheduling, level of care, provider roles, financing of care, transportation, equipment needs, roles of the patient and their relatives, facility design, legal responsibilities, in-service training of staffs and use of common language to clarify communication.

It is encouraging to note the high level of interest by educators and the providers of oral health care for the elderly, and to record some of the specific developments that have taken place since the first conference: one dentist has developed a mobile unit to serve several nursing homes in a metropolitan area; hygienists are becoming more involved directly with nursing homes; a mobile unit is being outfitted to serve several counties in eastern Iowa, (under a project jointly supported by the Heritage Agency on Aging, Hawkeye Community Action Program and the College of Dentistry) to be both an educational and service unit visiting nursing homes and well-elderly clinics; more nursing homes are seeking dental consultants; and the College of Dentistry has received a three year grant for development of a geriatric curriculum.

Such commitment and action is evidence that much can be done to improve both the quality and quantity of health care as providers, agencies and institutions cooperate at the local level to plan and work together.

*Dr. Roger Simpson, Assistant Professor, Department of Preventive and Community Dentistry, College of Dentistry, University of Iowa.

INTRODUCTION

The goal of the Conference:

To provide a setting for communication among persons interested in improving the quality of dental care for the elderly. The program is designed specifically for dentists, dental hygienists, and nursing home directors and nurses.

The objectives of the Conference:

1. To know the needs for dental care in nursing homes.

2. To know the problems associated with delivery of dental care in nursing homes.

3. To know the laws, policies, and regulations of Iowa regarding dental care in nursing homes.

4. To be familiar with the methods and techniques most appropriate for dental hygiene and oral health care in nursing homes.

5. To understand how to do cancer screening of the oral cavity for elderly patients.

6. To know the resources available for providing in-service staff training on oral health for nursing home personnel.

7. To know the role expectations of dentists, nurses, and hygienists regarding a team approach to maintaining oral health in nursing home facilities.

8. To understand some of the practical considerations for future developments that would facilitate improved oral health care in nursing homes.

The Interdisciplinary Planning Committee:

Dr. Roger Simpson, Convener, Assistant Professor, Department of Preventive and Community Dentistry, College of Dentistry, University of Iowa
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THE PROGRAM

8:30 WELCOME & INTRODUCTIONS. STATEMENT OF PURPOSE.
Dr. James Beck, Act. Head, Dept. Preventive & Community Dentistry.

8:50 RESULTS: Survey of Iowa Dentists and Nursing Homes, 1979.
Ms. Jane Jakobsen, Asst. Instructor, Prev. & Community Dentistry.
Dr. Roger Simpson, Asst. Professor, Prev. & Community Dentistry.

9:00 DENTAL CARE IN NURSING/LICENSED HOMES: STATEMENT OF NEEDS.
Dr. Roger Murray, private dental practice, Dubuque.
Ms. Jane Wright, R.N., Director, Beverly Manor Nursing Home, Iowa City.

9:30 POLICIES, LAWS, REGULATIONS.
Ms. Mary Snarzyk, R.N., Nursing Consultant, Licensing Div., Iowa Dept. Health.

9:50 QUESTION AND DISCUSSION. Comments are invited from the registrants of the Conference.

10:00 BREAK: Refreshments in the lobby.

10:20 ROLES AND EXPECTATIONS OF DENTISTS, NURSES AND HYGIENISTS.
Dr. Robert Glenn, Asst. Prof., Prev. and Community Dentistry.
Ms. Jane Wright, (supra) for Nursing Home nurses.
Ms. Hermine McLeran, Asst. Prof., Dental Hygiene Department.

11:10 QUESTIONS AND DISCUSSION. Comments are invited from the registrants.

11:30 PORTABLE DENTAL EQUIPMENT, and a care facility dental experience.
Dr. Roger Murray (supra).

12:00 LUNCH

1:00 IN-SERVICE TRAINING, Programs for Nursing home staff. Dr. Robert Glenn (supra)
PATIENT ASSESSMENT, MANAGEMENT, TREATMENT MODIFICATIONS.
Dr. Ron Ettinger, Associate Professor, Removable Prosthodontics.

3:00 BREAK

3:20 PATIENT MANAGEMENT: Nurses' Perspectives.
Ms. Veryl Alexander, R.N., Health Serv. Supv., Good Samaritan, Davenport.

4:00 WHAT'S HAPPENING: SOME POSSIBILITIES FOR IMPROVING DENTAL CARE IN NURSING HOMES.
A general sharing of ideas and experiences.
A DENTIST'S PERSPECTIVE: Dr. Ron Ettinger
A DENTAL HYGIENIST'S PERSPECTIVE: Prof. Hermine McLeran.
A NURSE'S PERSPECTIVE: Ms. Joan DeSpain, R.N., Clinical Supv. Intermediate Care Facility, Burlington Medical Center, Burlington.
COMMENTATOR, Dr. Naham Cons, Prof., Prev. and Community Dentistry, former Dr., Bureau of Dental Health, N.Y. State Dept. of Health.

4:45 CONCLUSIONS. Dr. James Beck

THANK YOU FOR COMING AND FOR YOUR PARTICIPATION, & BEST WISHES TO YOU IN YOUR WORK!

WELCOME, AND OVERVIEW OF THE CONFERENCE

James Beck*

I would like to welcome you to the second in a series of Continuing Education Sessions on Geriatric Dentistry. Our first session took place last November and stressed the multi-disciplinary theme with emphasis on Dental Care in Nursing Homes. We are very happy to see such a large turn-out to this session and your attendance indicates that the area of dental care in nursing homes - which has long been neglected - by both the profession and the nursing homes themselves is becoming more important. We are very happy that you are here and hope that we can all learn something from each other.

The purpose of this day is quite simple. We hope to explore the subject of dental care in nursing homes from a multi-disciplinary approach. The registrations for this session are about evenly divided between dentists, dental hygienists, and nursing directors. There are a few nursing home administrators and dental assistants also in attendance. In today's session we hope to explore the roles of the various professions in providing dental care to residents of nursing homes; the problems that have prevented care from being given in the past; and the barriers to care that must be overcome presently and in the future. While the goal of what we are trying to do is quite simple, the fact that a multi-disciplinary approach puts burdens upon both the presenters and the audience. We have assembled here the principles and the team needed to organize and deliver dental care in nursing homes. As in every-day work situations, we are involved with individuals from various disciplines. Those disciplines have different approaches to problems, different emphasis on the same problem, different value hierarchies as to which is the most important aspect of the problem and we all do not speak the same professional language. It will be incumbent upon the speakers here today to set forth their assumptions; to delineate their expectations of the other professions; and to describe their

topic in language that the majority of us can understand. In addition it is also incumbent upon the audience to listen carefully, especially to the speakers who represent areas other than your own. It will probably be from these speakers and areas that we will each learn the most. If we are to function in a multi-disciplinary setting, we must practice understanding the approaches and problems of all the disciplines represented and how they interface. In addition we hope that you will participate in this session by questions, discussions and alternative points of view.

Again, we thank you for your interest in this program and hope that this day will be both a social and learning experience for all of us.

*Dr. James D. Beck, Associate Professor, Head, Department of Preventive and Community Dentistry, College of Dentistry, University of Iowa.

IOWA SURVEY OF DENTISTS AND NURSING HOMES, 1979

A Summary

Roger Simpson and Jane Jakobsen*

Professor (Sir) William Ferguson Anderson, speaking at the "Geriatric Dentistry" Conference here in 1978, stated that, in terms of the elderly, 'we have no idea what is going to hit us, the costs are going to be astronomical, the numbers are going to be almost beyond our ability to count, and so the only way to handle this is for us to remain healthy.' In working together to design the future for those we love (and for ourselves) we need to make intelligent decisions, based on available information, and also gather additional pertinent data.

We know, for example, that by the year 2000, there will be over 30 million elderly in our society. Iowa leads the nation in the percent of the population over 75, and has 17% of its population over 60. In terms of dental needs, nationally, 45% of those over 65 have not seen a dentist in over 5 years. In addition, 90% of those with natural teeth need some kind of periodontal treatment right now. Iowa has a lot of people in and out of nursing homes; therefore, we decided to survey two populations concerning oral health and the elderly: (1) the dentists in private practice, (2) Licensed Care Facilities (nursing homes), (LCF).

In cooperation with the Gerontology Center we choose Title XIX (Medicaid) as one category to check out. The surveys[1] in terms of design, had three sections: (1) "Who are the dentists who are treating the elderly, and what are the characteristics of the nursing homes"; (2) "What is happening there right now, in terms of the dentist and the nursing home"; and (3) "What changes do you think are needed?"

From the practicing dentists, we obtained a 52% return. From the 729 LCF's in Iowa, we received a 32% return. Analysis of LCF response indicated

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[1]The Survey forms are included in Appendix 1.

it was representative of Iowa in terms of the types of beds.

In reference to an analysis of some of the results, the first three tables are pertinent descriptors of dental practices as they relate to patients over 65 years of age. Table 1 presents the basis of concern for elderly patients. With the elderly representing about 17% of the population in Iowa, with half the dental practices having 10% or fewer elderly patients, apparently the elderly are not represented by the same proportion in dental practices as they are in the population.

Table 1

DENTAL PATIENTS OVER 65

% of Patients	# of Dentists
1-4%	48
5-9	130
10-14	146 Median = 10%
15-19	69
20-29	114
30% and over	75

Table 2 shows that by far the majority of dental practices have 10% or fewer of their patients over 65 eligible for Title XIX.

Table 2

PATIENTS OVER 65 ELIGIBLE FOR TITLE XIX

% of Patients	# of Dentists
1-10%	390 (84%)
11-20	30
21-30	21
over 30%	24

Table 3 identifies five major oral health problems seen in more than half of the patients over 65.

Table 3

DENTAL PROBLEMS OF PATIENTS OVER 65

Problem	% of Patients
Denture	77%
Periodontal	70
Need fillings	68
Oral Hygiene	60
Oral Surgery	53

Of the services performed in LCF's, Table 4 shows cancer screening was done the least by dentists and staff. In-service training was the service most often performed.

Table 4

SERVICES PERFORMED IN VARIOUS LOCATIONS

Service	By Dentists	in LCF	By Staff in LCF
Staff Education and Training	60%	48%	
Routine Checks	46	16	
Hygiene Care	42		85%
Denture Marking	36		58
Oral Cancer Screening	26		3

There are 152 dentists who reported that they were Dental Consultants in LCF's. Extrapolated to all dentists (52% answered the survey), there would be about 40% of the LCF's with dental consultants. While a dental consultant is a logical source for staff and in-service training that pertains to oral care, since 80% of the LCF's have no budget for oral care, payment of the dentist for such service is an obvious problem.

In Table 5, it is clearly indicated that the majority of personnel in the nursing homes are "aides". With the high turnover rate of "aides", training them and depending on them for adequate oral health supervision of patients, identifies another major problem of the elderly.

Table 5

STAFFING OF LCF's (medians)

	Full Time	Part Time
Registered Nurse	2	2
Licensed Practical Nurse	2	2
Aides	11	9

Another real concern is how best to deliver oral care to LCF residents. Table 6 summarizes the degree of mobility residents would have in respect to travel to a dental office. Sixty percent are able to travel to a dental office, although most of that number (50%) would need an escort. Still, a significant number (20%) would need to receive dental care in the nursing homes. This poses a challenge to both the dentists and the nursing homes for working out mutually agreeable strategies.

Table 6

LCF RESIDENT MOBILITY

	Median
Residents who could travel alone to dental office	10%
Residents who need an escort to dental office	50
Residents who would need dental treatment in LCF	20
Residents who are too frail to receive dental care	10
No answers, no information	10

Other barriers to getting oral care delivered to the LCF are: the problems with getting consent from either the resident to be treated or from a relative of the resident, and the cost of oral care.

In Table 7, private funds and Title XIX were reported as the most used methods to pay for dental care. Other funding was reported as being from 'county' or 'veteran' sources. Twenty percent of the nursing homes reported that they had some residents who did not get needed dental care because they could not pay and were not eligible for Title XIX.

Table 7

HOW RESIDENTS PAY FOR CARE

% of Residents	Private Funds		Title XIX		Insurance		Other	
1-25%	27%	(63)	12%	(27)	7%	(14)	4%	(9)
26-50	30	(70)	24	(56)	2	(4)	1	(3)
51-74	15	(36)	25	(58)	0	(0)	1	(3)
75-99	7	(17)	14	(33)	0	(0)	8	(19)
Median	40%		52%		10%			

These surveys answer a few questions about oral care for the elderly, and they also show the need for improvement of the delivery and training systems for oral care.

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*Jane Jakobsen, Assistant Instructor, Preventive and Community Dentistry, College of Dentistry, University of Iowa.
Dr. Roger Simpson, Assistant Professor, Preventive and Community Dentistry, College of Dentistry, University of Iowa.

DENTAL CARE IN NURSING/LICENSED HOMES:

STATEMENT OF NEEDS

Jane Wright*

The aging person has lagged far behind other segments of our population in getting oral health care and this is especially true of nursing home residents. Regular dental care is nearly non-existent for the majority of nursing home residents.

Presently less than 30 percent of the elderly within most communities use dental services on a regular basis. In the nursing home this percentage is considerably lower. Dental care is a health service which must be considered as part of total patient care.

There are numerous stumbling blocks encountered when attempting to deliver dental care to the elderly in a nursing home.

The first hurdle is finding a dentist who is interested in providing dental care in a nursing home setting. Will he come to the nursing home or will he insist on office visits only? Is his office accessible to handicapped individuals who may be using walkers, wheelchairs, and canes? Are there stairways to climb, and parking facilities near exits? If he will make calls to the nursing home, does he have portable equipment? Will the facility be expected to provide portable equipment? Does he accept Medicaid patients as well as private patients? Are his attitudes toward the elderly and the aging process conducive toward providing good dental care?

Transportation is a primary problem with elderly. Who will provide the transportation - family; facility; volunteer; staff? Transportation decisions are part of the planning process. Does the resident need additional assistance to get in and out of a vehicle and up stairways?

In Iowa, the lack of licensure rules pertaining to dental care doe not encourage dental care. Unlike medical care, dental care may not be provided without prior requests by the patient, guardian or person responsible for the patient.

Attitudes toward dental care of the elderly need to be changed. Education of the patient, the family, the staff of the nursing home, and the general public needs to become a priority. How many of us have heard the phrase, "Mother doesn't need a dentist anymore - she has dentures"; or, "Father is 86 years old now, so it doesn't matter anymore". The elderly themselves look upon dental care as a luxury. In earlier days, preventive dentistry was unknown. Extraction of natural teeth was more prevalent and dentures replaced those teeth.

We see a high percentage of ill-fitting dentures because the elderly retain the dentures long beyond the useful life of the dentures. (In a published survey by Dr. Ron Ettinger it was discovered that in a sampling of edentulous elderly, 90 percent showed some form of irritation to the denture-bearing tissue.)

Fixed incomes, escalating health care costs and deficient public tax support add to the stumbling blocks in the provision of dental care to the elderly.

We must contend with the misconception that the elderly, especially in institutions, no longer require dental care. Many geriatric dental problems result not from aging, but from neglect. We have turned our heads away too long. The time is here to address the problem with unfaltering acceptance of responsibility for the provision of dental and oral health care services to residents in nursing care facilities.

The important element in assuring dental health care in nursing homes is not necessarily the provision of all needed treatment - but rather it is the creation of an on-goingoral health program that can be implemented by the nursing staff, with the assistance of the expertise provided by the dentist and dental hygienists. We must begin now.

*Jane Wright, R.N., Director, Beverly Manor Nursing Home, Iowa City

DENTAL CARE IN NURSING/LICENSED HOMES: STATEMENT OF NEED

F. Roger Murray*

While many nursing homes report that they have a dental consultant, only 14% of the home residents we surveyed in Dubuque, Iowa had had a routine dental exam within the past year. 61% of those surveyed felt that they needed dental treatment of some type. So, in essence, we have the fastest growing segment of our population being grossly neglected dentally. The ambitions of the average dentist to remedy this need may be overcome by his concerns about the logistics of in-home dental care. However, portable equipment is available with which you can provide nursing home dentistry similar to in-office care. Transportation of your portable equipment can easily be provided by a van-type vehicle or, if necessary, loaded into the trunk and back seat of a family car. The equipment you would be using is light enought that it can be loaded and transported by your staff. The lack of financial benefits and many hours of out-of-office time consumed by nursing home dentistry hopefully will be balanced out by the emotional rewards for both the dentist and his staff and the variety it adds to a routine practice. With very little effort the average dentist can vastly improve the quality of life for the geriatric resident.

*Dr. F. Roger Murray, Private Dental Practice, Dubuque, Iowa.

POLICIES, LAWS, REGULATIONS

Mary Snarzyk*

Iowa Rules and Regulations are very minimal as they pertain to dental care in nursing homes. We have approximately 9 lines in our rules. Only one section of our rules requires a dental consultant, and that is for the institutions for the mentally retarded. The "intermediate care" and the "residental care" facilities are not required to have a dental consultant. The rules are as follows:[1]

"The name, address, and telephone number of a dentist is required on the admission record.

The intermediate care facility personnel shall assist residents to obtain regular and emergency dental services.

Transportation arrangements shall be made when necessary for the resident to be transported to the dentist's office.

Dental services shall be performed only on the request of the resident, responsible relative, or legal representative. The resident's physician shall be advised of the resident's dental problems.

All dental reports or progress notes shall be included in the clinical record.

Nursing personnel shall assist the resident in carrying out dentist's recommendations.

Dentists shall be asked to participate in the in-service program of the facility."

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[1] Iowa Rules and Regulations Setting Minimum Standards for Health Care Facilities, September 27, 1976, Ch. 58, p. 79, 87.

When surveying a nursing home, I go through the facility and look at each of the residents to see if their needs are being met. When I look at their dentures, I consider -- are they marked? -- are they clean? -- are they chipped? -- are they cracked? -- are there a great number of mouth odors? -- how are the personnel taking care of the resident's dentures? -- are they throwing them in the drawer? It is very disheartening to go into a dirty utility room and open up a drawer and find maybe 10 or 15 sets of dentures with no known owners! Someone there in that nursing home needs those teeth. When I'm looking at the people, besides looking at their dental problems, I see their poor hydration, their poor nutrition, the decubitus ulcers they have, and their poor general health status. Most of these problems can be attributed to their not having dentures or having ill-fitting dentures. How is the staff taking care of the dental equipment: the toothbrushes, are they clean? -- are they thrown on the shelf? -- are they thrown in a drawer? Often I will find the toothbrushes right next to the dirty comb and hair brush and with hair covering the toothbrush. I have even found a toothbrush in the bedpan!

We do have another rule which does not come under our dental rules, and for which I can "cite" a facility. This rule is "all personal care equipment must be maintained in a safe and sanitary manner".[2] This means that if I find the dentures improperly handled, or the dental care equipment improperly handled, I can "cite" the facility with a Class II violation. The Department could levy a fine of $100 to $500 against the facility for repeated deficiencies of this nature. The facility needs to have proper procedures developed to teach the aides, since the aides are the ones out on the floor caring for the residents. We have limited access to trained personnel; therefore, we need dental in-service to teach the staff members of the nursing homes. The home needs to develop

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[2] Ibid., p. 95.

policies and procedures for their nursing procedure manuals to teach the aides how to give good dental care to the ambulatory, the dependent, and the comatose patient. The dental care in a nursing home is only as good as the Director of Nursing and her staff think it should be. If the staff doesn't have high standards of dental hygiene, then they will not take good care of the residents' dental care and problems. One of the most disheartening things that I have seen was in one home where three residents had nasogastric tubes and very necrotic teeth. Their breath was so foul that the nurses had to use an electric deodorizer in the room. Two of these residents have immediate family members who are dentists. They refuse to take any action about the dental problems. All the nurses can do is to document the family refusing any and all dental care recommendations. Another disheartening event: I personally took care of a resident who had come to the hospital with a lung abscess and eventually died, then upon post mortem, they found necrotic teeth in the lungs! There is no excuse for this.

Our rules are very minimal. If you feel like I do, that dental care really is important, then you, the people who are interested, have to make your thoughts and feelings known to the Department. If you want to make proposed changes, you may write to Mr. John Buckley, Acting Director of our Department. The Department can make a proposal to the Administrative Rules Committee. The Administrative Rules Committee will act on these proposals; if adopted, they will be filed and, approximately 45 days after approval and filing, they will become the new law and go into immediate effect. I want to ask you one thing: "If you are going to be a consultant, are you going to be a consultant on paper only, or are you really going to do your job?" I don't want new rules to "cite" the homes if the consultant is not going to do the job. I have to "cite" the facilities if they are not doing their job, but it is not fair to cite them for the consultant's neglect. I have no authority to come into dental offices and

make the consultant pay a fine for lack of concern. The biggest complaint in my area is that the doctors don't come to the homes, nor do they seem to care about the elderly residents in the homes. All we have is paper compliance! It is very discouraging when one is out there looking at the problems and trying to get quality care. Often I have phone calls from family members complaining about the lack of care. Another complaint that I frequently receive is from the ministers and the priests who bring in communion to their members: "Why can't they do something about dental care?"

Well, I can only do what is within the limit of the law and the law as I read it today, is very minimal. You, the interested members, are the ones who must ask for the changes in the law. I think that we must work together as a team to obtain better dental care for all of the residents in our facilities.

Bibliography

Iowa Rules and Regulations Setting Minimum Standards for Health Care Facilities. (September 27, 1976), Ch. 58, pp. 79, 87, 95.

*Mary Snarzyk, R.N., Nursing Consultant, Licensing Div., Iowa Department Health.

ROLES AND EXPECTATIONS OF DENTISTS

Robert Glenn*

Dental care in the nursing home is practically non-existent. Traditionally, dental care has been provided almost always in the private dental office, occasionally in the hospital, but almost never in any other location. I hope that the current trend of events changes that situation.

I'm going to play the role now of a private practitioner who has been called by a nursing home to provide a dental service in that nursing home. When this happens I have four categories of concerns that immediately come to mind: I have concerns regarding the patient; regarding the facilities that are going to be available to me in the nursing home; about the skills of the staff people in that institution; and I have some concerns about myself.

What concerns do I have about the patient? I want to know if this is an emergency -- do I have to get out there during my lunch hour, or is it a routine type of service that they expect me to provide. I'm concerned about how long it's been since any dentist has had his fingers in this patient's mouth. How long has it been since this patient has required or perceived the need for dental care? What is this patient's general physical condition? It may come as a surprise to some people to know that dentists are concerned about the total physical conditions of the patients that they are treating. How long has it been since their last complete physical examination? Is this patient at risk more than the patients that I am used to treating everyday in my office? Are there blood dyscrasias in this patient? How long has it been since they've had a white count or hemoglobin or hematocrit? What about hypertension? Is blood pressure routinely taken on this patient? What about diabetes? We know that diabetes is an insidious thing that often develops unknown to the elderly patient. Another thing that concerns me is what drug regimen is for a given patient. They are admitted to the nursing home

and they will have accumulated as many as 25 or 30 medications. Some have been prescribed for them; some they've picked up themselves at a drug store on the recommendation of a friend or a pharmacist. They may be taking unreal combination of drugs. What about their nervous disorders? Here I'm speaking about their motor syndrome. What about senile dementia? There is some interesting new thinking concerning dementia that indicates it may not be as widespread as was once thought. Many things used to be brushed off with that diagnosis: "Well what do you expect, that person is 85". What about the patient's mobility? This is of real concern to me, in case I need to take this patient to my office -- can I take them in my car; will I need an ambulance; can this patient get on a bus and come to my office; will they need an escort? If I want to use something more than a local anesthetic, will I need hospital facilities? Can the treatment I have been asked to do be provided in the setting of the nursing home? I'm also concerned about this patient's abilityto cooperate with me. As most of you know, dental care generally requires the cooperation of the patient, and producing that cooperation in an elderly patient can sometimes be as difficult as producing it in a three or four year old child. What about communication? We know that there are many age-related difficulties in hearing. Will I be able to communicate with this patient? What about the patient's tolerance to a local anesthetic and it's after effect? Residual anesthesia or paresthesia may exist after the procedure has been completed. Will the patient's blood pressure be affected by the injection of anesthetic?

What about the patient's motivation for dental care? How much dental care will they tolerate? What is their perceived need for this care? What is the family's attitude toward that patient getting dental care? Do they want to spend the money? Do they feel that it might be an emotional or painful experience that the patient may not be able to tolerate? Will they think that the treatment is worse than the disease? The family attitude is of primary importance, because we like to believe that somebody is going to pay the bill when it is presented.

And finally, as to my concerns about the patient, what is the attitude of the physician toward this dental care? The physician must approve of the dental care that the dentist is providing and I'm concerned about this because it's been my experience that physicians don't know a lot about providing dental care, or about what can be done. So, I am concerned as to whether I am going to have to fuss with the physician to get approval for what I'm going to do.

I have other concerns regarding the facilities that are going to be available to me when I go out to the nursing home to provide dental care to one of their residents. I think we make a mistake in dental education in that we teach students that the only way they can provide a service is if they are surrounded by $100,000 worth of chrome plated equipment. They don't feel comfortable in providing services in any other setting. We can't expect the long term care facilities to provide us with a dental operatory, so we have to use substitutes. The beauty shop area is a good place to do dental work and portable equipment is also available.

Another category of concern that I have is about the skills of the nursing home staff itself. What are they going to be able to do for the patient in the way of post-operative care. Am I going to get called out in the middle of the night to stop a secondary hemorrhage? Or does the nurse aide know that the same thing can be done by having the patient bite on a moist tea bag. Nurse aides are a category of staff people that are not paid the highest salary in the world. There is a rapid turnover in personnel and they don't all have nursing skills. Fortunately, there's a very active in-service training program to help them out. I have some reservations also about the LPN and RN, and how much they know about post-operative care of dental cases.

Last, and probably equally important, is the concern that I have about myself and my image as a health care practitioner. I have had a very low level of training and experience in the field of geriatric dentistry. When we did our survey of dental schools we found very few of them that are offering any kind of

comprehensive training in geriatric dentistry. Certainly my own training in school was non-existent. This bothers me because I don't want to make a fool of myself, in the eyes of other health care professionals, in my fumbling attempts to do a job that I have not received formal training in doing.

This job that I'm going to do requires my absence from my office for what may possibly be an extended period of time, and I can't professionally or ethically charge portal-to-portal pay. I don't think that I can charge a fee for doing an extraction which is a significantly greater fee than I would get if I were performing the same service in my office. I don't know that a third party payer, such as Title XIX or a commercial insurance company would approve of an elevated fee because I had to make a house call. So my loss of time from the office is going to be a significant factor in how much of this care I'm going to be willing to provide.

And finally, just what is my total committment to providing care for these people. Hopefully conferences like this will stimulate enough interest so that when it becomes my turn to be a geriatric patient that I will be able to find a geriatric dentist.

*Dr. Robert Glenn, Assistant Professor, Preventive and Community Dentistry, College of Dentistry, University of Iowa.

ROLES AND EXPECTATIONS

Jane Wright*- Nursing Director's Perspective

In a health facility the role of the Director of Nursing is to direct, monitor, and supervise the program of patient care.

Each resident in a long term care facility must have a written individualized plan of care, developed by the nursing staff in accordance with the resident's physician's orders and recommendations for care. This plan includes all aspects of care - personal hygiene, medication administration, diet therapy, rehabilitative therapy, and psychosocial needs, among others.

The plan also needs to include the residents' oral and dental care needs and the plan for meeting those needs. The best plan for consistent oral hygiene is to incorporate it as part of the regular daily plan of care.

But before the nursing staff can provide quality oral hygiene care, they must be aware of the correct procedures - the "how to".

In-service education to all members of the nursing staff, at regularly planned intervals, is an essentail phase of any dental program. The Director of Nursing must be responsible for providing the opportunity for oral/dental in-service to all members of the nursing staff.

The Director is responsible for formulating dental policies with the consulting dentist and dental hygienists.**

Ultimate responsibility for the quality of patient care administered belongs directly to the Director, even though other nursing personnel actually provide the nursing services.

The Director's responsibilities, upon admission of a new resident, include seeing that the following procedures are implemented regarding dental/oral care:

**An in-house resident council may be useful in the formulation of policies to meet their needs. Residents have a right to be a part of the decision-making regarding their health care.

1) Initiate oral screening
2) Begin the dental record
3) Note if patient has dentures
4) Recognize ill-fitting dentures
5) Mark dentures not identified
6) Recognize serious oral lesions
7) Schedule patients for follow-up treatment
8) Make records available to dentist and dental hygienist

Responsibilities also include obtaining prior approval from the resident or a family member for the initial screening and/or dental examination. The resident, his family, or guardian has the right to be consulted prior to dental treatment.

The Director of Nursing must provide a spirit of cooperation with the dentist and dental hygienist. She must provide working space, staff time, and available equipment. She needs to set the stage for a viable oral/dental program.

A good preventive oral health care program can reduce the need for and the cost of expensive restorative dental care. It will enhance and preserve oral functioning -- chewing, swallowing, speaking -- and not least of all, facial esthetics, all so important in patient care.

A preventive oral health care program is effective and can be successful if the nursing staff, lead by the Director, believes that it is valuable.

*Jane Wright, R.N., Director, Beverly Manor Nursing Home, Iowa City

ROLES AND EXPECTATIONS

Hermine McLeran*- Dental Hygienist's Perspective

It is very rewarding to see such an excellent response to this Continuing Education Course on Geriatric Dentistry and to see so many disciplines represented. In this presentation, I would like to discuss the role of dental hygienists in a nursing home setting and some of the expectations they might have in terms of other personnel in the nursing homes. As I approach the subject of role expectations, I would like to take you on a visit to a nursing home with two dental hygiene students. During our visit, the role of the dental hygienist will emerge as will expectations we have of nursing home personnel and staff. During the senior year, dental hygiene students spend one semester in a course in community dental health in which they are assigned to various agencies in the community. Betty and Cindy, the students in this agency, were assigned to a nursing home near Iowa City. They were somewhat apprehensive since they had not had much experience in treating elderly patients. Their first step was to go to the library, review the literature and to talk to people in the dental school who had experience in treating elderly patients. This enabled them to learn more about the dental care needs of the elderly and special characteristics of this population group.

The first visit to the nursing home was a very rewarding experience. A meeting was arranged with the administrator, the director of resident care services, and the nursing supervisor. Since they had not had dental hygiene students or a dental hygienist in their facility in the past, they were interested in knowing what services a dental hygienist could offer their patients and what they could do to help these students. As the meeting began, the nursing home personnel expressed to us how pleased they were to have two students and how concerned they were about the lack of oral hygiene and dental care for their patients. This made the students feel welcome and eager to do all they could to

help the patients. We began by offering suggestions of how we might be able to help the residents in their nursing home. First we suggested screening all the residents, which would include the condition of the dentures, caries, periodontal disease, condition of the soft tissue and cancer screening, with subsequent referral for those patients who need dental care. Another service we would be able to offer would be to clean and mark dentures, to teach patients how to care for dentures and/or their own teeth. We could provide in-service training programs for the staff and, under the supervision of an instructor, could provide an oral prophylaxis for some patients.

They were eager to implement all of these services and wanted to know how they could help. We explained that we first needed to know more about the home, such as the number of beds, the routine, the activities, what day of the week and the time of day that would be most convenient. After some discussion we toured the home and found many of the patients in the activity room, engaged in a project of sorting material, and making braided rugs. Others were watching television and taking naps, or visiting. The rooms were all very pleasant and had decorations and personal belongings which added to the warmth of the room. This nursing home projected a pleasant and comfortable atmosphere for the patients. Another area that requires time of the nursing home personnel is what we call the observation and planning phases of the program. In order to determine needs of patients, it is important that dental hygiene students spend time observing and getting acquainted with patients, study their medical and dental histories, and learn more about special techniques of working with the elderly. This requires some committment of time of nursing home personnel, if this stage of the program is to be effective. Some questions that might be asked of the administrator or nursing home supervisor are:

Can you help the students with the medical records so that they can become familiar with the medical conditions, special medications, or

any other conditions that may have an effect on the oral health of the patient?

Can someone help the students understand your philosophy of patient management and identify special patient characteristics in relationship to the dental program?

Another critical area is, "Will time be made available for the in-service training of the staff?" This is an area that has presented some problems in the past. When in-service training programs have been developed, staff are required to come to these on their own time, which is often very difficult for people who are working and have family obligations. It is important that the in-service program not be just one program. Many times it requires several programs of in-service training to cover all the material that aides should really know about dental care and oral hygiene care for the elderly patient. This gives the aides the opportunity to go back and put into practice ideas that you are trying to present in each of these programs. Another important consideration is whether there is adequate space available to conduct the program and the in-service education programs. The success of any program in a licensed care facility depends upon the cooperation and rapport developed between the students or the hygienists, and the personnel and patients in the facility. That is why we feel that the observation and planning phase of the program is so important. Once rapport has been established and background information gathered, the students can then plan an effective program which will meet the needs of both nursing home personnel and the patients in the facility. Frequently the first time we arrive in a facility, there is an expectation that we will present an in-service program and conduct the screening examinations. It is like any other group of patients, once they know and are acquainted with the students or dental hygienists who will be working with them, they will be much more cooperative. So, we feel that it is important that rapport be established and that

students get to know the people in the nursing home before they begin their program.

One further expectation that contributes to the success of a program is the willingness of the staff to implement daily oral hygiene procedures after a program is developed. This involves a commitment from staff to assist the residents who need help with their oral hygiene and make it a part of their daily care program. Because of a cooperative and helpful attitude in this particular nursing home, we will be able to establish all the services that we had suggested and conduct a very successful program.

*Hermine McLeran, Assistant Professor, Dental Hygiene Department, College of Dentistry, University of Iowa.

IN-SERVICE TRAINING FOR NURSING HOME STAFF

Robert Glenn*

There has been an increasing demand for in-service training programs in dental health care at nursing homes since we first started offering this service as an educational experience for students. I will outline a typical dental health care in-service to prepare you as dentists and hygienists to present these programs when you are called on. We want to show you what kinds of materials are available so that you will be a little more at ease when you're doing this.

In-service training programs vary a great deal in content. If there's one thing that I would advise you, above all, is not to use a lecture format. You know what a lecture is don't you? A lecture is known as the method by which information is transferred from the instructor's notebook to the students' notebook without passing through the head of either. It's a widely used method of conveying material in teaching, but it's really not as effective as it could be. The thing you need to do in presenting an in-service training program, first of all, is to capture your audience. For this, we use a quiz. The quiz is a means of establishing rapport, and we typically start off a program by passing out this quiz that I just handed to you. We have the staff actually mark it and then we go over the correct answers. We want to establish a level of knowledge that we think is appropriate for a nurse aide or LPN to have, regarding oral health problems. That is probably the only part of our in-service training program that we always use.

When you prepare to do an in-service you should find out from the individual who is in charge of in-service training, what topics they are interested in. Then select the various instructional materials that are available to develop a program that will fit those needs. In some cases we demonstrate the mechanics of brushing and flossing, with the philosophy that an individual cannot create a higher level of dental health in their patient's mouth than what they maintain in their own mouth. But not all places that you go will allow you enough time to do that, so there are some other things that we do.

A slide/tape series, entitled "Oral Health Care in the Nursing Home" is available through our Department. The slide/tape series is about 12 minutes long and can be used in a number of ways. It comes complete with the script so that you can read the script and show the slides, or it comes with that script recorded on tape, if you have a tape synchronizing machine to run the projector. That kind of a presentation can establish a base for a lot of discussion.

A commerically produced 16mm film is available from the Iowa State Department of Health, Dental Health Division in Des Moines. It is entitled "Oral Hygiene for the Extended Care Patient" and is 21 minutes in length. The setting is a nursing home, and there are various degrees of patient infirmity shown, from a very simple type of case to a very complex case.

Among the other things that we present are techniques for denture identification. We have the nurse aide actually do an identification process on the denture. The kit that we find most handy is available from Minnesota Mining and Manufacturing (3M), either directly or through dental supply houses. It's a little expensive, and you can accomplish the same thing with a little fine sand paper, an indelible pencil and some clear nail polish.

We demonstrate the use of ultrasonic denture cleaning equipment. There are several sizes of ultrasonic cleaners, one is a commerical-size product that is used in dental laboratories and dental offices. It is available in dental supply houses at a cost of about $400-$450. The other one is a smaller and less powerful model, and costs about $75-$80. You can get them in various sizes and strengths down to one that's sold in the drug store for about $12.50, which is for use on an individual basis. We stress the use of these ultrasonic cleaners for dentures as the most efficient means of keeping them clean.

Another portion of the in-service is to demonstrate toothbrush adaptations for people who have some kind of infirmity. Adaptation of hand brushes and denture brushes are also available for the individual who has had a cardiovascular accident and perhaps has the use of only one arm or one hand. These people

would have a problem cleaning a denture unless they had a brush that can stick on the sink with a pair of suction cups.

Screening of patients is another service that we offer in conjunction with the in-service training program. This is an optional part of the program and not all of the institutions want us to do this. Sometimes there isn't time available, but it is a service that we do offer.

Another slide/tape series entitled "Oral Pathology in the Elderly" is available through the Department of Preventive and Community Dentistry. This is not designed to make diagnostic pathologists out of nurse aides. It's designed to show examples of what should be recorded on the patients record if discovered in a patient's mouth.

As you can see, you can combine these presentations in a number of different ways to produce an in-service program that will run 60-90 minutes in length. Should you want to have a dental student come and give a program, we will be happy to see that that is done. Sometimes we ask you to share in the mileage expense of getting the student there and back. We typically draw these students from our Mobile Unit Program and from our Broadlawns Hospital Program, but any student who is in the senior class, and is participating in their extramural 9 week off-campus program, is prepared to put on an in-service with this kind of material. And of course, if you as individuals want to do it, now you know what's available and where you can get it.

*Dr. Robert Glenn, Assistant Professor, Preventive and Community Dentistry, College of Dentistry, University of Iowa.

The following audio visual materials are available** for use in presentation of in-service training programs in nursing homes:

1. "Oral Health Care for the Extended Care Patient." This is a 21 minute, 16mm sound motion picture in color. It discusses and presents in great detail techniques for maintenance of a healthy mouth in patients with varying degrees of disability that are bedfast. The setting is in a typical nursing home and gives not only techniques but some useful ideas as to medicaments that can be used in the process of a nurse aide providing actual oral health care at bedside.

2. "Oral Pathology in the Elderly." This is a slide/tape series of 34 slides and a 10 minute tape. It was developed by Drs. Ronald Ettinger and Howard Field of the College of Dentistry of the University of Iowa, and gives the viewer an understanding of the common types of pathological conditions found in the oral cavity in elderly people. The focus of this slide/tape is not to make diagnosticians out of the viewer, but rather to familiarize the viewer with the types of conditions that are apt to be found in the mouth.

3. "Oral Health Care in the Nursing Home." This is a slide/tape series consisting of 54 slides with a 12 minute tape. It demonstrates the accepted procedures for examination of the oral cavity of the elderly patient and discusses methods of dealing with the oral health problems of the patient confined to a nursing home.

**1. The above three units of audio visual materials are available from the Dental Division of the State Department of Health, Lucas Office Building, Des Moines, Iowa 50319. Direct all correspondence regarding reserving these materials to Dr. William Maurer at the State Department of Health.

PATIENT ASSESSMENT, MANAGEMENT AND TREATMENT MODIFICATIONS

Ronald Ettinger*

The Elderly Nursing Home Resident

There are over one million persons living in nursing homes in the U.S.A. and they make up 5% of the population over the age of 65.[1] They have a number of common characteristics which are summarized below:[2]

They are aged:	the average is 82, 70% over 70.
They are female:	women outnumber men 3 to 1.
The majority are widowed:	only 10% have a living spouse, 63% are widowed, 22% never married, 5% are divorced.
They are white:	96% are white, 2% are black, 2% are of other races.
They are disabled:	65% are mentally impaired, 33% are incontinent.
They take multiple drugs:	an average of 4.2 drugs each day per person.
They are alone:	more than 50% have no close relations or relatives.
Few have visitors:	more than 60% have no visitors.
Few can walk:	less than 50% are ambulatory.
The majority come from home:	31% come from hospitals, 13% from other nursing homes, the remaining 56% from their own homes.
Their average length of stay:	is about 2.4 years.
Few will leave:	only 20% will return home, some will be transferred to hospitals, but the vast majority will die in the nursing home.
They are in need of dental care:	60-70% have immediate dental needs, 55-65% are edentulous. Their last dental visit was 6.0 to 6.5 years ago. The average age of their dentures varies from 10-14 years.

Problems in Geriatric Dental Care

The problems in geriatric dental care are of a varied nature. The biological problems of the elderly are multiple and related to changes associated with aging and their multiple medical and drug histories. The technical problems are relatively few as the basic techniques used in dentistry do not vary greatly, and the technical expertise required for the dentists remains the same. The management of the patient and ability to formulate an adequate treatment plan is the biggest problem.[3] The medical status, the mobility status, the mental status and the drug status of the patient are of vital interest for they greatly effect the prognosis of the treatment to be rendered. The financial problems can be very challenging; however, the solution may be in the development of various insurance programs and government aid. The delivery of dental care to the homebound as well as for the nursing home patient remains a large problem. I think that is something the dental schools and the profession can work to improve by training dentists to be aware of the problem, by giving dental students experiences outside of the confines of the dental schools and by making them familiar with mobile dental equipment.

The dentist has two absolute responsibilities to any patient; the first is to relieve pain, the second is to resolve infection. All further treatment after that is elective and depends upon the needs and expectations of the patient and the ability of the dentist to provide the services required at a cost that the patient can afford.

Patient Assessment

To effectively treat any patient the dentist must take a medical history. If nursing home personnel wish to effectively utilize the dentist, they must help to inform him of the medical and drug histories of those persons who

wish to have treatment. Dentists need the nursing director's knowledge of the patient to assess physical status, mental status, the transportability of the patient, their neuro-muscular coordination and limitations.[3] For example, for an elderly person to be able to use a denture effectively requires that person to have tissues capable of supporting the dentures and to be able to tolerate the low grade trauma induced by the movements of every denture function. They must have the motivation to persist in learning how to use these potentially traumatic man-made substitutes for nature and finally they must have sufficient neuro-muscular skills to be able to do it.[4] If a person has to persist in wearing a denture at the conscious level (and this is the situation with every new denture, one always begins at the conscious level), the wearing of dentures becomes intolerable. The control for this is exercised through the alpha-motor neuron system directly from the cerebral cortex. If the person cannot, in a short period of time, switch to the unconscious level or the reflex level using the fusimotor muscle spindle loop system, they will reject their dentures.[5,6] For this very reason it is necessary for the dentist to ask for help from the nursing personnel who know the patient well, in assessing the patient's motivation and neuro-muscular ability, such as their walking capability, and especially their ability in speaking or eating with whatever dentures they may possess. For elderly debilitated patients, it is important to create as little change as possible and to do it in a series of gradual steps so that the patient can cope with them.[7]

The patient's motivation and expectations are exceedingly important. It is necessary to know something of the patient's previous dental experience as well as assessing their present dental status. Their expectations, but more importantly, their family's expectations of the dentist will greatly influence the treatment plan. After evaluating all of these factors the dentist needs to examine his skills and his facilities in being able to deliver the treatment planned.

Let me give you an example of how complex a simple problem could be. The nursing director of a home calls the dentist to come and see one of the residents, an elderly lady who is wearing complete dentures and who has been complaining of a sore mouth. Let us examine some of the possible problems this might create in treatment. It could be that some food has slipped beneath the dentures during eating and traumatized the tissues: simply removing the irritant will result in a cure. It could be that tissue change has occurred beneath the dentures and this has caused trauma: simple adjustment of the dentures may resolve the problem. It could be that a root fragment or tooth buried in the bone has become exposed: extraction of the root fragment or tooth and relining of the denture may solve the problem. It could be that the dentures are cracked or broken, unless they are beyond repair: that is not a difficult problem to solve. It could be due to an oral manifestation of a systemic problem related to absorption or diet. If she had an iron deficiency anemia, or a severe Vitamin B_{12} deficiency, her tissues might be so fragile that she may have a glossodynia of such magnitude that she wouldn't be able to tolerate anything in her mouth. It could be that she may have a severe hormonal inbalance such as an estrogen deficiency. The alleviation of the oral problem in this eventuality would require the correction of the systemic deficit. It could also be due to tension as a nervous habit such as clenching of her teeth. Even on very healthy tissues this will create soreness and pain. It could be due to her mental status depression can be manifested in the mouth as pain, and that is not uncommon in the elderly. It could be that she no longer has the neuro-muscular coordination to manipulate her dentures which don't fit very well and she just can't hold them in place anymore, and therefore, the dentures are meandering around her mouth and creating trauma. It could be her general health status, if she is debilitated or depressed, then she won't have the ability to maintain healthy oral tissues, as oral health is dependent on general

health. It could be due to an infection of the oral tissue by Candida Albicans, a commesual fungus of the mouth which becomes pathogenic when the oral environment is compromised. Thus, a simple oral complaint may not have a simple solution and may be the manifestation of a greater systemic problem which requires the dentist to work with the physician in the care of the patient.

For the purposes of dental management the elderly can be roughly grouped into four broad categories.

Group I - The Healthy Ambulatory

This group consists of those persons who are ambulatory, independent and relatively healthy. The dental treatment of these elderly is not fundamentally different from any other age group except that one may not wish to stress them by long appointments or by keeping them supine in a dental chair for long periods of time.

Group II - The Medically Compromised

This group consists of patients who are medically compromised but who, with aid, are able to visit the dentist in his office. If these patients are to be seen in the office then the dentist must evaluate the office for architectural barriers.[8-12]

Location - The site for an office may in itself present a barrier if:

1) It is located on a steep hill.
2) If access is only by many steps such as an upper floor of a building with no elevator.
3) Parking
    a) is a long way from the office site
    b) no spaces are reserved for the disabled
    c) danger exists if patients have to wheel behind parked cars.

Entrance

1) All steps should be color contrasted with red or orange to aid depth perception.
2) If there is a large expanse of concrete it should have designs in it to reduce glare.
3) If there are steps, there should also be a ramp with a gradient of not more than one inch rise for every 12 inches or 8 degrees and a minimum width of three feet to accommodate wheelchairs. Ramps should have nonslip surfaces and level spaces every 25-30 feet.
4) The entrance way should be well lighted to aid visual accommodation.
5) The doorway threshold should not exceed a height of one-half inch.
6) Loose or thick mats in front of doors are dangerous for older patients or persons on crutches or wearing leg braces.
7) Doors should be easily opened by push or pull and should not be pressurized above six pounds of pressure. Two-leaf and revolving doors are difficult to operate.
8) Hallways should be well lighted with no low objects in the shadows; and for wheelchair maneuverability, they should be at least five feet wide to allow normal two-way traffic.

Directory and Public Phones - They should be at eye level, positioned away from the glare of sunlight and lettering of adequate size so that it can be easily read. Phone dials and handles should be low enough. Booths should permit access by wheelchair.

Elevators - To accommodate wheelchairs, they should be at least five feet by five feet with electric eyes so that they will give people adequate time to enter or exit. The controls should be accessible to a person in a wheelchair.

Toilets and Water Fountains - Toilet doors should swing outwards with safety handrails which will support a person weighing at least 250 pounds.

The toilet needs to be the height of a wheelchair and the sink should be hung from the wall and should not be more than 34 inches high. For safety, especially for mentally retarded or confused persons, the water in the pipes should not be above 120°F. Lever type faucet handles are the easiest for all persons to handle. Water fountains should be hand operated with controls in front. Recessed and alcove coolers are not recommended.

Waiting Room - This area should be well lighted with color contrasting of the floor and walls. The floors should be level with non-skid surfaces and no deep carpets. There should be no low furniture or loose rugs and the chairs must not be soft and deep or an older or handicapped person may not be able to get out of them.

The Operatory - The doorways need to be at least 32 inches wide. The size of the operatory should accommodate a dental chair plus a wheelchair (approximately 7 feet wide) so that the dental chair can be placed parallel to the wheelchair. If the dental chair has an air foil base then it makes it extremely easy to move.

If the operatory cannot accommodate a wheelchair or if a dentist elects to treat the patient in the dental chair, then the dentist and his staff should be familiar with the various techniques of safe wheel chair transfers.[13]

Postural Hypotension - When helping an older patient out of a dental chair, care must be exercised as it is important to remember that many suffer from postural hypotension.

The normal response when a person moves from a recumbent to a vertical position is first a brief drop in both the systolic and diastolic pressures,

followed by a stabilizing response which is a slight rise in the diastolic pressure and no change in the systolic. This is accompanied by a small rise in pulse pressure. The stabilizing response is a sympathetic vasomotor reflex.

The majority of old people have a similar response to the one described above. However, if the systolic pressure falls below 20mm Hg then there may be associated symptoms of weakness, dizziness or syncope resulting in postural hypotension.[14-15] The common causes of postural hypotension are:

1) Antihypertensive drugs, e.g. methyl dopa, reserpine or ganglionic blocking agents.
2) Side effects from a variety of drugs, e.g. tricyclic antidepressants, phenothiazines, barbituates, laevodopa.
3) Disorders affecting the autonomic regulation of blood pressure, e.g. diabetes, cerebellar degeneration.
4) Low cardiac output in ischaemic heart disease.
5) Reduced blood volume due to hemorrhage, sodium depletion, some bacterial or virus infections.

When a dentist treats older patients it is wise to take a careful history about drugs, heart and circulatory disease. It helps to ask questions like, "Do you feel dizzy when you sit up on wakening in the morning?" or, "Have you had any incidences of fainting?". We feel that it is expedient to avoid the supine position with the feet above the head when treating older patients and necessary to bring the chair to the vertical slowly. These older persons should be observed to make sure that they do not "leap" out of the dental chair and that there are sufficient pauses before they change position to allow circulatory accommodation.[12]

A number of studies[16-18] have shown that the ambulatory elderly have multiple medical disorders which are not always diagnosed or treated. The evidence suggests that the older the patient, the larger the number of multiple medical disorders there will be and the larger the number will be who are taking drugs which put them at risk for local anesthesia or minor oral surgery. Most nursing home patients will fall into that risk group or they would not be in a home.

Group III - Homebound

This third group of persons are those who should not be transported and need to be treated in their place of residence. This group consists of persons who are bedridden, very frail, or debilitated and also those who are incontinent or catheterized or who are mentally disturbed by travel.

Group IV - Hospitalization or No Treatment

This group of persons should only have emergency treatment because of their severe retardation or extreme ill health. It also includes persons who have aggressive or unsocial behavioral problems which cannot be modified by drug therapy, and so many may require treatment under general anesthesia.

Oral Changes Associated With Aging

The stomatognathic system in the elderly of the developed countries is characterized by a number of changes associated with aging,[19] the most important of which are listed below:

1) Tooth attrition and loss
2) Atrophy of the alveolar and basal bone
3) Atrophy of the oral mucosa
4) Tongue changes in appearance, sensation, and movement
5) Temporomandibular joint degenerative changes
6) Changes in the amount and composition of saliva

7) Changes in the microbiological ecology of the mouth

8) Changes in the neuromuscular systems

9) Increased incidence of malignant change

Attrition and abrasion of the dentition is common in older persons. The causes are varied and may be due to:[4]

1) Developmental enamel hypoplasia

2) Abrasive diets

3) The effect of acid, either due to regurgitation or the use of acidic beverages

4) Abrasive oral habits, including clenching and bruxism due to stress or malocclusion

5) Wear from denture porcelain teeth opposing natural dentitions

6) Changes in the nociceptive reflex, which guards against the teeth clashing together on closure and is associated with psychiatric or neurological diseases, e.g. Parkinson's disease; senile cortical atrophy.

For this last group of persons, the effects of the natural dentition are visible as wear of the clinical crowns. Use of a mouth guard while sleeping may help to alleviate some of the problems. In the edentulous person, these forces can cause gross bone loss of the residual alveolar ridges, making the wearing of dentures intolerable. Maintenance of the natural dentition at any cost is therefore of importance to this group of persons.

Oral Hygiene

If a natural dentition is to be preserved or even part of it, such as a couple of tooth abutments under an overdenture in one arch, then oral hygiene must be maintained. To make this assessment which affects treatment planning

requires an assessment of the social and environmental supervision of the patient, for expediency patients can be divided into three general categories:[3]

Category I - This group consists of persons who have sufficient neuromuscular coordination and motivation so that oral hygiene aids can be modified for their use in cleaning their own teeth or dentures independently.

If a person has cerebral palsy, multiple sclerosis, spinal cord injury, Parkinson's disease, severe arthritis or a cerebrovascular accident, he or she may be unable to control a toothbrush unless one increases the size and weight of the brush handle.

If a person has limited arm movement at the shoulder due to accident or disease, the length of the handle of a toothbrush can be increased to aid them.

If a person is wearing any kind of a denture and has lost the use of one arm, either due to amputation or disease, he or she is unable to independently clean the dentures. Suction cups attached to the base of a brush will help to restore independence.

For all of these persons, once adequate oral hygiene levels have been attained, dental care becomes routine.

Category II - Persons in this group have poor or inadequate neuromuscular coordination and require daily assistance to maintain their oral hygiene at an acceptable level. If such a person has a concerned or caring family member or a reliable attendant to help with their oral hygiene, then their dental care and treatment will generally require no special considerations. However, the family or the attendant will require training in specific oral hygiene techniques applicable to that person.

Category III - This group presents the greatest problems for it consists of persons with poor or inadequate neuromuscular coordination who are

2) Fibrous and atrophic changes in the salivary glands which decrease the volume of salivary secretion and changes in its constituents.

3) A loss of dexterity resulting in poor oral hygiene.

4) Gingival recession which exposes cementum which seems to be less resistant to caries than enamel.

Root caries can be among the most difficult lesions to treat because often the lesions run around the circumference of the tooth and an effective restorative material does not exist. Prevention in the form of good oral hygiene, the use of artificial saliva where required, and topical fluoride therapy to increase resistance to decay is the treatment of choice, at this time for all older dental patients.

Xerostomia

In medically healthy older persons, there are often degenerative changes in the salivary glands that result in a reduction of salivary flow (xerostomia). The consequences in this reduction are a loss of cleansing and washing action and a decrease in the lubrication of the mouth and decreased bacteriostasis. Swallowing, tongue mobility, and the wearing of dentures can become difficult. There is an increased rate of cervical caries and an increase in plaque formation and periodontal disease.[23-25] The changes are slow and progressive and vary in intensity from patient to patient, but can be accelerated by many drugs commonly used by the elderly, which are listed below in order or severity of the xerostomia they may produce.[26-28]

1) Anticholinergics or Antispasmolytics - Banthine, Bentyl, Donnatal

2) Antihistamines - Chlor-trimeton, Benadryl

3) Major tranquillizers - Thorazine, Mellaril

4) Antidepressants - Lithium, Elavil, Tofranil

5) Antiparkinson - Cogentin, Artane, Levodopa

6) Antianxiety - Atarax, Miltown

7) Opiates - Lomotil, Doeine

8) Antihypertensives - Reserpine, Aldomet, Ismelin

9) Diuretics - Diuril

Physicians should be made aware of the oral side effects of the drugs they are prescribing. If side effects are noticed, it may be possible for the dentist to suggest to the physician that drug dosages should be adjusted or changed. The dentist should also help in the treatment of the xerostomia. Unfortunately, the effective treatment of xerostomia in the elderly is difficult, but a multifaceted approach may be successful.[29, 30]

Alleviation of Xerostomia:

1) Dietary - Patients should be advised to avoid: dry and bulky foods, spicy or acidic foods, alcoholic beverages, carbonated beverages, tobacco. A high fluid intake should be encouraged unless it is medically contraindicated.

2) Environmental - Maintenance of optimal air humidification in the home is useful especially during sleep, as is using vaseline to protect the lips.

3) Dental - A visit to the dentist to make sure that all sharp cusps of teeth or irregular fillings are smoothed and that dentures are checked and adjusted for any irritations they may be causing.

4) Saliva Stimulation -

a) Drug therapy - Cholinergic drugs as pilocarpine and neostigmine bromide may be tried unless medically contraindicated.

Drug therapy is not effective if the cause of the xerostomia is related to an underlying disease or metabolic state for which there is no specific therapy, such as:

(i) radiation of the salivary glands during the course of treating malignant neoplasms.

(ii) auto-immune disease, the most common being Sjorgens syndrome.

(iii) side effects of other drug therapy.

b) Gustatory or masticatory stimulants - The chewing of sugarless candy or gum is an aid to encourage salivation.

5) Temporary Palliation - Mouthwashes, especially those containing glycerol, can be useful to alleviate oral discomfort. However, an artificial saliva which can be put in an atomizer and carried by the patient for use as required has proved useful.

Oral Candidiasis

In the edentulous patient, an induced or acquired xerostomia predisposes the patient's mucosa beneath the dentures to ulceration and infection, especially to oral candidiasis. Candida Albicans is a normal commensal of the mouth in about 60% of healthy individuals. However, if the oral environment undergoes change due to local or systemic causes, this commensal fungus may become pathogenic.

Among the elderly, there are many predisposing factors to oral candidiasis,[31,32] some of which are listed here:

1) Endocrine disorders

a) Diabetes mellitus

b) Hypothyroidism

2) Malnutrition and malabsorption syndrome

a) Iron deficiency anemia

b) Pernicious anemia

c) Post gastrectomy

d) Alcoholism

unable to maintain their oral hygiene and receive no regular help.

The persons in this group often have some mental disabilities which can be congenital or acquired, such as cranial trauma, cerebral anoxia, encephalitis, brain tumor, cerebrovascular accident, or chronic brain syndrome.

The residents in this group can also include adult retarded patients who have outlived their families and so have been institutionalized. Although it is easier to extract all teeth in these persons and place them on a soft diet, each individual should be assessed independently to evaluate the value of maintaining some sound teeth. If the dental history indicates a continuous and progressive deterioration of the teeth and the periodontium, rendering them edentulous may be the treatment of choice. Constructing a complete upper denture only to restore some aesthetics may be a great service for selected patients.

In any nursing home the management of dental hygiene for dependent patients is usually carried out by the nurse aides. Unless these nurse aides are convinced of the value of a natural dentitions or of dental care, they will not make the extra effort to add this chore to their work load. Therefore, in-service training of nursing home personnel is of great importance to the dental health of the homes' residents.

Caries

Caries in the elderly is different from that which is observed in the adult or young patient.[20-22] It is mainly root caries and increases after the age of 70 years. The causes of this form of caries have not been fully identified. However, a number of factors have been described, such as:

1) Changes in the taste buds of the tongue which cause dietary changes especially an increase in sugar intake.

3) Drugs depressing defense mechanism

a) Immuno suppressives

b) Cortico steriods

c) Cytotoxic

d) Radiation therapy

4) Drugs changing oral environment

a) Antihypertensives

b) Diuretics

c) Antibiotics, etc.

5) Malignant diseases

a) Leukemia

b) Agranulocytosis

The use of topical polyene antibiotics such as mycostation and amphotericin B and the newer drugs such as miconazole are useful in the treatment of oral candidiasis, but the treatment of chronic candidiasis is difficult. Treatment of the underlying disease is of primary importance, followed by elimination of the local complicating factors. Thus, the care of these patients requires the dentist and physician to work together closely if the patient is to benefit.

Oral Carcinoma

There are approximately 200 systemic diseases which have oral manifestations; however, for the elderly, the oral carcinomas are extremely significant. It has been estimated that there will be 24,400 new cases of oral carcinoma in 1979, which is 3.2% of all cancers.[33] Of these, 300 will be in Iowa. The incidence of oral cancer in persons over the age of 65 is much higher. The number of diagnosed oral carcinomas for the year 1973-74 in the state of Iowa was 482, which is an incidence rate of 168 per 10,000 population. For those over the age of 65, the rate was 759 per 10,000 population (Ref.

Table 1).[34] The 5 year survival rate for oral cancer is excellent if the lesions are diagnosed early (Ref. Table 2), and as the elderly visit their physician far more regularly than they visit their dentist, referral by the physician for regular oral examinations and oral cancer screening is desirable.

The health professions are responsible for educating the public in preventive health measures and in treating the disease states that occur. The total health care of the elderly requires cooperation and a team approach. Dentists have a specific role on this team because they can improve the quality of life for the elderly by keeping them free of oral infection, restoring their dentition so that they can enjoy mastication, and restoring facial aesthetics and morale. Therefore, every nursing home should have an oral health policy similar to that which is described below:

1) The routine oral examinations of all persons on admission to a nursing home by a dentist, preferably the resident's own dentist, and treatment carried out with the following priorities according to the physical and psychological ability of the resident to receive care.
    a) Relief of pain and treatment of acute infections
    b) Elimination of pathological conditions
    c) Extraction of unsavable teeth or roots
    d) Removal of irritating conditions which may predispose to malignant change in the area
    e) Treatment of bone and soft tissue disease
    f) Replacement of teeth and restoration of function
2) All residents of homes should be examined by a dentist at least once every year with particular attention given to the detection of possible malignant lesions.

3) All oral appliances should be marked with names or numbers.

4) The cleaning of teeth or dentures should be regularly performed, preferably by the resident but if they are incapable, then by the staff.

5) All residents should be encouraged to remove their dentures while sleeping.

6) To maintain the oral health of the residents, in-service training of nursing home personnel is required so that they may help to alert the dentist of any changes in the resident's ability to masticate, to maintain oral hygiene or the presence of any oral lesions.

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TABLE 1

Iowa Cancer Epidemiology Research Center 1976

Cancer in Iowa (1973-1974)

No. of cases diagnosed	Total	Over Age 65
Lip	194	120
Tongue	82	42
Salivary Glands	53	21
Floor of Mouth	54	25
Other - Mouth	99	64
Total	482	273
Incidence per 10,000 population	168	759

TABLE 2

American Cancer Society

Oral Cancer Statistics 1979

5 Year Survival Rate (1965-1969)

Site		Rate
Lip	-	84%
Tongue	-	32%
Mouth	-	45%
Pharynx	-	21%

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PATIENT MANAGEMENT: A NURSE'S PERSPECTIVE

Veryl Alexander*

The problem of oral health care for the geriatric patient has been recognized for many years, but has taken a back burner on the stove of implementation. I'd like to quote from an article published in the 1979 March-April Journal of Gerontological Nursing by James H. Price, entitled "Oral Health Care for the Geriatric Patient". He quotes a 1958 American Dental Association Guideline, approved by the American Medical Association and the American Hospital Association. There are seven points:

1. All nursing home residents should receive a dental examination at the time of their entrance into the home.
2. Local dental societies should develop programs for nursing home residents.
3. Ambulatory residents should be transported to the dental office of their choice for necessary treatment.
4. Portable dental equipment should be available, in order that dentists can render necessary treatment in the nursing home for nonambulatory patients.
5. Many residents of nursing homes who have dental problems are either unwilling or unable to accept dental treatment.
6. If the national picture of poor oral health care in the elderly is as bad as expected it will be impossible to provide a total and immediate remedy without seriously taxing the dental manpower and the financing agencies.
7. Some method of providing patient care should be developed for those nursing home residents who desire care but are not financially able to purchase it.

These were recognized and recommended in 1958.

A survey in 1973 shows that less than 20% of nursing homes provided any form of dental services. It was recommended that more responsibility be taken by the nursing home staff of the facilities. These responsibilities would include:

1. Establish a transportation system for patients to private dentists.
2. Label dentures.
3. Provide denture storage containers and see that those who wear dentures remove them on a regular basis for about eight hours.
4. Provide a means of cleaning dentures.
5. Provide a means of cleaning natural teeth.
6. Use of lemon glycerin swabs for xerostomia and for cleaning the oral cavity.
7. Regular examination of the oral cavity for possible lesions.
8. Modifications for those needing modified equipment.
9. Acquire portable dental equipment for those too ill to travel to a private dentist.
10. Add a dental chart to the regular medical records.

Nursing homes should also implement some oral health care education, and that would include:

1. Illustrating the proper method for brushing teeth.
2. Illustrating the proper type of oral hygiene equipment for natural teeth.
3. Illustrating the proper method of cleaning dentures.
4. Providing education on the potential dangers of do-it-yourself reliner kits for dentures, discouraging use of denture adhesives.
5. Education of the clients and their families about dental quakery.
6. Recognizing that some patients are poor candidates for care.

Here is the situation in our facility, and some of the problems we have, solutions we are trying, and some of the problems we have in trying to meet

the goals we have set. I recently took a small survey of the residents we have. We are a 211 bed facility with an average census of 208. Status of Dentition: Residents with teeth remaining - 39 (18 in relatively good repair, the rest poor), Dentures - 141 (25 have only upper denture, 9 have only lower dentures). Of these 141 residents, approximately 20 wear their dentures only for meals and 16 do not wear them at all. Edentulous (without dentures) - 28. To assess the residents' ability to care for their own teeth, we had to assess the ADL (activity of daily living) abilities. Of our 208 residents, 54 were self-care. By this I mean they were mentally alert and physically capable of caring for their own teeth. They might need some assistance in obtaining the supplies that they need, and some assistance to make sure they were doing a good job, but basically they could do their own care. We have 109 residents who require assistance. Of these 28 would only require setting up supplies, being there to supervise and hand them what they need and finish up. We have 81 residents who require step-by-step assistance. They could brush if we actually put the toothpaste on the toothbrush or take out dentures and prepare equipment so they wouldn't drop them on the floor, but they need constant attendance to care for their teeth. There were 35 residents who could do nothing for themselves. Of all our residents only one had a dental history. In discussing mental status, I must explain this situation a little. We have many residents who are confused and cannot handle their own affairs. We also have many who are capable of handling their own but whose families handle them as a matter of convenience. Only 35 families have actually had a legal procedure of guardianship. We have 133 who are handling bill paying and other matters by the virtue of the fact that they handle the money. We have 10 residents that have their matters handled by banks or conservators. At our facility 81 residents have private funds. Of these a few could pay for dental care but for many this would be a real burden. Many of our families help meet the bills. The remainder of our residents are Title XIX.

The current availability of dental services.

We have some families who have maintained contact with the dentist. Upon admission, 79 had a dentist of record. (I feel that for approximately 1/3 of them, the dentist has probably never heard of the resident - it was the first name that popped into the family's mind when asked the question.) Many of the residents, particularly those with dentures, have not been to a dentist in years. We have 129 residents who did not have a dentist of record. During this survey I checked with 3 other facilities to compare their situation with ours. Of the four facilities all four had a dental contract. Two consultants provided in-service education. In one facility the dentist sees all residents with teeth, and who are experiencing problems. The other three consultants see residents rarely or not at all. For residents able to go out, service is readily available. We can find a dentist (either their own or a consultant) who will see them. Our in-house service has, for the most part, been limited to emergency type procedures, such as extractions. We have had some limited follow-up service for denture fitting.

The most difficult aspect of appointments is scheduling transportation. It is a very big consideration. I'm going to give a breakdown on the number of people and the problems we have to consider when we are planning a visit out of the facility. First, we have 29 residents who wouldn't need any extra consideration, except for the fact that they are elderly. We are certainly not going to take them someplace after a 6 inch snow storm or an ice storm. We have 52 residents we would be unable to take out for any appointment. The main reason being their need to be transported by ambulance. This is a big cost and Title XIX will not pay for this, and the families probably do not have the funds to pay for it either. About 20 of the 52 residents could not be transported to an appointment because of their emotional instability. They would not be able to function in your office: they might become hysterical or violent. For the

remaining 130 residents, we have to do some special planning. Things that we would consider would be:

1. Activity tolerance. When we are taking someone out, we cannot just count the amount of time they will be in your office. We must include the amount of time it takes to load them in whatever vehicle they are going to use, the time to travel to your office, the amount of time to unload, enter your office, waiting time, the actual visit; and then the whole process in reverse. If that procedure takes longer than two hours, we have many residents who will not be able to make the trip. Their ability to remain seated for that length of time is a great hardship for many people, especially residents who are under weight or require special padding to sit in chairs.

2. Transferability. Once they get to your office, are you going to be able to treat them in a wheelchair? If you can, we've got 130 people we can send. If you can't you have to diminish that number, unless you have a hydraulic lift or 3 or 4 very strong backs, you would have difficulty transferring those residents from their wheelchair to your chair. Earlier it was mentioned that having a catheter would be considered a reason for not transporting someone out. For most people that I know in the nursing home, that would not be considered a reason for not going out of the facility.

3. Continence. We must consider the availability of bathroom facilities, but they must be facilities into which we can take an ambulatory person using a walker, or a person in a wheelchair. Many of our residents are on training schedules and must be taken to the bathroom at least every two hours.

4. Accessibility of the office. We don't mind parking in a parking lot. We don't even mind parking down the street. But if we have to park two blocks away - well we don't want to do it. We have to have some place that we can get the resident in and out of the vehicle in which they are traveling, and be able to get them to the office in a reasonable amount of time. There must be ramps. The doorways must be wide enough. Corridors have to allow you to go forward, backward and turn around in order to get in and out of places. Most buildings, particularly older buildings were not built to meet those needs.

5. Weather. We are very picky about weather. That's probably the main reason we would cancel an appointment. It is very difficult to manueaver a wheelchair on snow and ice, and if the parking lot isn't cleared or we've had a snow storm and the appointment is at 8:00 a.m., we are not going to be able to make it. Also, if the weather is extremely cold, we would be hesitant to take many of our residents out because they lack the ability to tolerate cold temperatures, even for the 15 or 20 minutes it could take to load and unload the resident from the vehicle in which they were traveling.

6. Mode of transportation. We have a van with a wheelchair lift, but one van is not adequate to handle all the transportation needs of 211 residents. Of the 3 other homes that I checked when preparing this -- one had no van, one had a van without a wheelchair lift, one had a van with a wheelchair lift. Most areas have FISH or "Senior Lift" available to help with transportation but whatever mode of transportation used

except for families, a staff member must accompany the resident.

7. Staffing has to be considered. At times, if one person calls in ill, we might not be able to accommodate sending a resident to the appointment. It would depend on what time of day the appointment was, if we could get extra staff. For example, if the appointment was at 1:00 p.m. we could probably handle it.

8. Time. Times of appointments are extremely important. An 8 or 9 a.m. appointment could be a problem depending on staffing. An appointment at 2:30 or 3:00 would also be a problem because I would have to send someone with the resident who had come to work at 7:00 a.m. and that would mean paying overtime. Early A.M. appointments are not always good for the resident. Although, for the nervous or anxious resident they are. We have one lady who we have been trying to get to the dentist for about 4 months. She is so anxious, (I'm afraid she's going to die of a heart attack, just at the thought of going to the dentist) we're giving up. She had dentures, became more and more confused, dropped her dentures on the floor, and broke them. We just can't communicate with the resident to find the reason she is so anxious about going to the dentist.

9. Communications. We don't require a physician's order for a resident to go to the dentist. We routinely call the physician and say we have noticed this problem and are contacting a dentist. Many times we do not receive a return call from the physician after we leave this message. We are required to have a dental progress note as part of the residents record. We usually do not receive this note after a resident visits the dentist. In the past year we have had only about 30 visits to the dentist but I'm sure we don't have more than 3 notes in the chart. We usually try to send a written communication to the dentist of what we have observed, what we see as the problem, and request that they send back to us a record that we can place on the chart. It is important that we have cooperation in the planning of the visits and the care. Quite often a treatment will be done to a resident, and we really don't know what is expected of us as follow-up care. We know how to brush teeth and clean dentures, and give oral hygiene. We have a written procedure and all of the staff have been taught how to do it. Hopefully it is being done. But, when someone goes to the dentist's office, we need communication from the dentist so we do not undo what has been done.

There are certain problems in carrying out dental care.

1. We need to know what the treatment is, specifically what do you want us to do with this resident. What is the best thing we can do to cooperate with you and be sure that what you're doing will be effective so we will not harm what you have done.

2. If you are ordering medication, who is going to pay for it? Title XIX has a long list of medications, many of them topical, that they will not pay for. Also, is the drug one that our pharmacy will be familiar with? If it is not commonly ordered for residents, we need to know a source so we can communicate this to our pharmacist.

3. We need to know what the expected response of your treatment would be. Some things look differently than one would anticipate. If we are not informed of the expected response, we may become alarmed by something that is perfectly normal and part of the process.

Education

Our professional staff have all had oral hygiene as part of their basic education. We evaluate each new staff person after they come to us and we reinforce our procedures and expectations. We do an assessment on each of our admissions. It is superficial, but we check to see if the resident has dentures, their own teeth, the condition of tongue and gums. This is part of each nurses orientation. We also teach denture marking. We have had a few problems with this. Some residents flatly refuse to have their dentures marked. Also, we have found that some denture cleaners remove that marking rather rapidly. We also explain that each person is supposed to have a dentist. We try to ascertain from the family the name of a dentist or have them obtain one. For non-professional staff, we also have an orientation program. A large number of our staff come to us untrained. We have an on-going 60 hour certification course, and that includes oral hygiene - the various levels for the well resident, the resident with some problems, and the comatose resident. We also teach the aides to do denture marking and to report anything that is changed. Then a professional person can assess what they are doing. Some of our aides do this very well, others not so well - it's the quality of help: some people do things better than others. Part of the problem is the level of education and socio-economic background of the people we are able to hire. We are fortunate in that we can hire many students. We use student nurses as aides when we can get them. But the vast majority of our staff are people who may not have been to the dentist themselves in five years. If oral care is not important to them, they find that one of the easiest things to let slide. Many times the aides set priorities and perhaps they would not be the priorities we would wish that they set. Resident education is a big problem area. We have done some specific resident education on a one-to-one

basis by the head nurses. We don't have a formal education system at this time. I have a new in-service director who is becoming more involved in patient education and she works with the activities group in doing this. I don't know how many of you are familiar with activities, so I'd better explain that. We are required to have an activities staff which works with the residents in current events, crafts, activities other than nursing activities - social events. But we do use them as one approach to some education. We do have safety education programs for our residents, we explain fire procedures, all the safety regulations, this sort of thing. We are trying to incorporate some health education. When people have dental problems there is always the problem of diet management. We do have a full-time dietician at our facility. They have a food service supervisor and then a consultant dietician who is only there 4 hours a week. It depends upon the amount of education and the amount of time that the food service supervisor has to be able to assess residents. Our dietician does do an initial assessment on everyone. She assesses their ability to handle certain types of food, their past diet histories, and then she plans the diet for them, trying to accommodate to the problems they have. When I talked to three other directors, and said I was making this presentation they all burst out laughing. They said that I could cover what we're doing in dental care in about four minutes. That really isn't true, but it seems to be a prevailing attitude. The problem has been recognized, since 1958 at least, but perhaps it has not been addressed.

We have another problem which I've left for last. How do we get a family's permission to obtain dental care. The education of the family or the whole society is what is really important. We have a lot families who feel that is an expense they are not willing to absorb. We also have families who say, when told that their parents denture is broken "can't you just glue it together - get some of that easy on cement and glue it." When we say "No", they become very upset. We've had some relatives who have become very hostile because we have

insisted upon providing oral hygiene for their family members when they didn't want us to do it. It made them uncomfortable when we took the dentures out of their mouth. They did not want us to take them out and clean them and put them back. We have about 15 residents we can give oral care to about 50% of the time. The rest of the time, because they don't want it and will bite, kick, scratch, hit, to keep you from doing it. We can't do that. We have two cases that are very upsetting to me. Both involve retarded individuals. One was maintained at home for 40 years, went to another facility, and then was sent to us. When she arrived, you couldn't stand to go into her room because of the odor. She was very hostile when she first came to us. I could understand why they had not had much success. She can not do this care for herself. About 50% of the time we're successful in giving her care. The other 50% of the time we can't get near her body much less her mouth. The other resident was kept at home for 40 years, and then sent to us when his parents died. His problem stemmed not so much from lack of oral hygiene as from lack of proper diet - no milk products for 40 years. There is a limited amount we could do about it. We have been able to obtain dental care for these two people. The fact they came to us in such poor condition, was not the fault of the other facilities, it was a lack of education of their families. This problem is a wider scope than just the education of our staff.

*Veryl Alexander, R.N., Health Serv. Supv., Good Samaritan, Davenport, Iowa.

WHAT'S HAPPENING

Ronald Ettinger*- A Dentist's Perspective

It has been documented that dental care is not reaching the nursing home resident. If a solution is to be found it may have to be through legislation. I know most dentists are allergic to more legislation but I think to get compliance, legislation will be required to mandate dental examinations of all persons on being admitted to a nursing home. I understand that the Iowa Dental Association has tried in the past with special recommendations to change the status quo. Unfortunately I don't think they have been able to convince either the nursing homes or the dentists that there is a need for dental services. Therefore, legislation with all its problems will be required to specify that every nursing home shall have a dental consultant who will have specific and defined duties.

Dental care within the nursing homes is different from elsewhere in the community. What if we took a health practitioner and gave them some special training and a different title. Lets call these people "long-term-care practitioners". These persons could be dental hygienists, pharmacists, occupational therapists, physiotherapists or any other paramedical personnel. They would have training in the primary area of their expertise and some special training in the other areas. They would act in liason with the nursing director's office which co-ordinates the day to day routines of the institution such as: making certain there are enough nurses for each shift; making sure the supplies which were ordered have arrived; making sure the staff is on time; see that the food is prepared and distributed according to instructions, etc. This doesn't leave the nursing director much time to go from patient to patient making sure that the staff are caring for the individual needs of the residents. This responsibility could be that of the "long-term-care practitioner", that is,

the day to day direct supervisions of the personal needs of the resident.

Dental hygienists could fill this role remarkably well. Primarily they would act in liason with the nursing directors, help with in-service health training of the residents and nurse aides and be directly responsible for the oral hygiene and oral health of the residents. The dentist then would only be needed for the diagnostic and restorative procedures. This would be more economical for the patient, the home and the dentist as they could schedule time in the institution efficiently and minimally. In the same way such a person could act in liason with the physicians and with the nursing staff.

There is one other observation I would like to make. I think it is splendid when an individual dentist is so motivated that he puts up the money to buy a van and portable equipment for nursing home care. However the "down time" on this equipment is enormous. It seems to me far more sensible for a group of dentists in a region, or a county dental society, or a study club in a city area to get together and finance such a unit and use it daily on a rotating basis. It would be far more efficient use of the equipment and much more beneficial in terms of the number of people who would be receiving that care.

*Dr. Ronald Ettinger, Associate Professor, Removable Prosthodontics, College of Dentistry, University of Iowa.

WHAT'S HAPPENING

Hermine McLeran*- A Dental Hygienist's Perspective

This morning I discussed the role that a dental hygienist can play in a long-term care facility or nursing home. It was presented to describe a role for a dental hygienist according to the current practice act in Iowa. We have all had times when we have contemplated the thought, "What if laws could be changed and the role of a hygienist could be expanded?" Our present law in Iowa states that, "The dental hygienist's services shall be performed under supervision of a practicing licensed dentist, at his usual location of practice, or reasonable extension hereof." I believe that this means a dentist must be present when services are being provided, at least somewhere in the vicinity. This afternoon I would like to explore the potential role of a dental hygienist in the licensed care facility if she could be fully utilized with some slight modification of the Dental Practice Act.

In the dental hygiene curriculum, students take courses in chemistry, zoology, anatomy, physiology, and in the basic sciences. There are liberal arts requirements in our program and in addition to the dental hygiene courses, they take courses in pharmacology, histology, dental anatomy, periodontology, pathology, anesthesiology, and the dental specialities. With this kind of background, one often hears the comment that the hygienist is under-utilized. In many instances this is the case, although I know many dentists who fully utilize their dental hygienists. How could this background be applied in a nursing home setting? In this hypothetical proposal, we must assume that the dental practice act in Iowa has been changed, to allow for an expanded role, as it has in several other states, such as Oregon and Minnesota. In Oregon, dental hygienists are allowed to work in public institutions or state licensed care centers, under the general supervision of the dentists. This means that the dentist does not have to be physically present while the hygienist is providing

services. Dental hygienists in Oregon are allowed to perform such expanded functions as curretage, which is a periodontal procedure, and to administer local anesthesia. Interestingly, the Dental Association fully supported the change in the practice act to allow dental hygienists to function in this expanded role, even though these are medically compromised patients. I believe this reflects the confidence that the dental profession has in the abilities of the dental hygienist.

Let us explore what a dental hygienist might be able to accomplish and how this might assist the dentist with limited time to devote to a nursing home. In our survey of dentists in Iowa, one of the most frequently mentioned comments by dentists in the state of Iowa was that the oral hygiene problems contributed to the major portion of problems of the patients that they saw in nursing homes.

Initially a dental hygienist could review the medical records of all of the patients, and note on a dental chart those conditions that need to be considered by the dentist. I do not think that this procedure is any different from those procedures that hygienists are expected to perform on a recall visit in a private dental practice. She could then screen patients, provide a prophylaxis and develop a preliminary treatment plan for review by the dentist. All of this information could be provided to the dentist prior to a visit to the home, and perhaps the dentist and the dental hygienist would need to get together in a liason function to discuss the cases. I believe that this would save a great deal of time for the dentist. When the dentist did visit the home, the patients would be ready for final diagnosis and treatment planning. These preliminary steps would enable the skills of the dentist to be utilized more effectively and efficiently and the time spent in the nursing home could be in treating patients, rather than many preliminary procedures which could be performed by a dental hygienist. In-service training is another function that

a dental hygienist could perform; again, saving the dentist's time.

Working with patients on daily oral hygiene care, and training nurse aides on an individual basis would be another important service that could be performed by the dental hygienist. I believe that because of the background and training of dental hygienists, they can fulfill a significant role in the care of the geriatric patient. It might require some minor curriculum revisions in the training of dental hygienists or the provision of continuing education program in Geriatric Dentistry since this is not an area that is routinely included in the curriculum. I think the big question is; "Are we and the dental profession ready to take the steps to allow this new role to come about?" It would be interesting to see what really could be accomplished since we really do not have any data or studies to show what can be done in a nursing home by a dental hygienist. It would be my hope that we could set up some demonstration projects in Iowa to see what could be accomplished by the dental and dental hygiene professions working together to meet the needs of the elderly in nursing homes.

*Hermine McLeran, Assistant Professor, Dental Hygiene Department, College of Dentistry, University of Iowa.

WHAT'S HAPPENING

Joan DeSpain*- A Nurse's Perspective

In library research on this subject to 1969, through ten years of the "American Journal of Nursing" and the "R.N." magazine, I had not found one article that was pertinent to anything dental or oral in either publication. I was really shocked that neither one of these publications had anything on dental hygiene. I found one article in the Journal of Gerontological Nursing, entitled, "Oral Health Care for the Geriatric Patient" by James H. Price, Ph.D., M.P.H. (1979, March-April issue).

Our facility had contacted the other three LCF Units in Burlington and had identified some questions that we were wondering about. These are the questions that were presented to all three of the other care facilities.

1) Do you feel that care in your facility is adequate and if not, why?
All four facilities answered, "No, equipment is not available for the dentists who work in the facility and the dentists are too busy."

2) Do you have consultant dentists on your staff?
Three facilities said, "Yes" and one said, "No".

3) What is a consultant's main function?
"Staff education and RX treatment as needed." This would be emergency-type treatments such as extractions at the bedside.

4) Is there any difference in care between private pay and Title XIX?
All four said "No".

5) How do the residents get to the dentist?
All four facilities answered either by the family, friends, or a staff member.

6) What equipment is there for dental care in your facility?
There was none in three facilities, and one facility had a very, very old dental chair.

7) What percentage of residents have their own teeth?

Two facilities reported less than half, one facility 60%, and the other facility 35% of the residents.

8) Are dentures checked on a routine basis for proper fit and chips?

All four of them said "No".

9) Is there cancer screening?

A "no" came from all four facilities. The facilities went into detail; they thought that this was the lesser of all the cares that were needed as far as money and time was concerned.

10) Do you have regular dental in-service training for your staff?

"Yes" for three facilities and "no" for one.

11) Who does the in-service training?

This is done by the consultant dentist of these three facilities.

12) Do you have emergency dental treatment policy for your facility?

All four said "no".

13) What is the most common dental emergency?

Broken dentures and toothaches.

Out of summary of these questions that we asked, we wanted to know what the recommendations were. The first one was to have a mobile unit come into their facility with portable-type equipment. Also a hygienist is needed to clean teeth. This, I think, would just be great.

Then the other facilities wanted to know what we were doing at Klein LFC. At Klein we have a 96 bed capacity and we are hospital affiliated which gives us a "plus" because we have a lot of services that we wouldn't have otherwise.

Here we look very closely at good nutrition; a balanced diet with high protein intake. For in-between meal high protein, high choloric diets, we use a lot of Ensure, Instant Breakfast and other products of this nature. We find it also very good for good skin care. We find people coming from homes with

very irritated, sore and bleeding gums. I feel it's generally a nutritional-type thing because they may have been eating eggs three times a day or perhaps they haven't been eating anything but toast or peanut butter sandwiches. Peanut butter is good protein, but not a very balanced diet.

We also look at treatment therapy in vitamins. We like to have our residents on a multi-vitamin. I look for Vitamin B Complex and Vitamin C which may be good for the gums and the mucous membrane.

We do a close and continual evaluation of each resident's drug therapy. We have their drug profile and evaluate the drugs because like with some tranquillizers and antihistamines, this decreases the saliva production. The fact that there is a natural decrease in quantity and quality of saliva as a person ages, can lead to abnormal taste sensations, cracking of the lips, fissures of the tongue and sore mouths. Oral lesions are observed, documented, evaluated-then reported to the physician. And generally with our physicians, the first thing they say is, "Well, you better call their dentist." We anticipate this as the usual course of action.

We try to have residents do good oral hygiene at least two times a day, each morning and at bedtime. Dentures are cleaned and out of their mouths at night and placed into containers. We have toothbrushes which are issued to each resident upon admission; we lable them with a label maker and stick their name on their brush and have a place to hang it in the bathroom medicine cabinet. Toothpaste is also provided. We do like the label maker and find them fine for labeling eye glasses also. This is another thing some residents take off and lay down. Then someone else puts them on and it seems like all of these little old women have the same kind of glasses. So they wear them for a week and the family comes in and says, "These aren't Mother's glasses!"

The residents are transported to a dentist for necessary care, again by family, friends or through our Hospital Social Service Department. If we can't

find anybody, we just turn it over to the Social Service Department and they get the transportation for us. We have done emergency tooth extractions right at the bedside, but some of these residents have teeth so loose that you can almost pick them out of their mouth. All dental work done on residents is documented on charts and documentation is supplied by the dentists for resident's medical records. When anyone goes to a dentist's office, we always tell the family or whoever takes them that we do want a record of this for the resident's chart. The dentists have been accommodating; we have never had any trouble getting them. So we have the resident's record of what's been done at the dentist's office each trip. In the last three months, we have probably had about six to ten residents who have had dental appointments and have gone to a dentist's office and had dental work done. These residents do it routinely. Of course we have a lot of residents who are not able to go to the dentist. Upon admission to our LCF unit, the resident's dentist's name is placed on their admission records. Perhaps it's the family's dentist and he has never seen this patient before. On our patient care plan, we have a space that we want to know "When was the last time you have been to the dentist?" Now this is a surprising question to ask somebody 90 years old who has had dentures for 50 years. They may not remember and perhaps the family doesn't remember either. But we do try to get this hisotry, if at all possible.

It is up to the nursing staff of extended care facilities to take more responsibility for implementing the oral health care of our residents. Family education is something that is needed on a continuous basis. I have heard frequently the following, "Mother has had dentures for 50 years and there's no reason for her to see a dentist." A lot of resident's dentures are so loose because they have lost weight, and so they're not wearing them. The family keeps coming in with all these little things that they stick in them, trying to make them fit a little better. Then it gets to the place where they don't want to use them at all and we begin to have problems with their nutrition.

The success of any dental treatment program is dependent upon three things: (1) the resident's motivation, (2) the resident's ability to physically cooperate, and (3) the resident's ability to communicate during and after treatment.

The article from the Journal of Gerontological Nursing noted that a common assumption by many health care team members is that since most nursing home residents have dentures, they have no need for dental service. As a result of this, few nursing homes have attempted to coordinate formal dental health care with total patient care. Extended care facilities need the services of skilled aides and hygienists.

One area which seems to have great potential for improving oral health, particularly of nursing home residents, is the training of the staff for routine daily care by identifying dental problems which need immediate attention and by instituting preventive procedures, and by improving oral hygiene and mouth cleanliness. Many of the existing problems then will be eased.

Unfortunately, though, the existing dental manpower is not capable of meeting the needs of all the elderly populations. Other countries such as New Zealand, Great Britain and Canada have solved some of their manpower problems by having nurses provide certain types of dental care under selected conditions. It is time for all care to become an integral part of patient care. When instituted properly, it may have beneficial effects beyond the oral cavity!

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WHAT'S HAPPENING

Naham C. Cons*- Commentator

I'm going to make some remarks, based on my experience as a bureaucrat when I worked for the Health Department in New York State, and was responsible for all the dental health care in the state. Legislation has been mentioned. A change in the practice act has been mentioned. These are jobs of a bureaucrat, but he can only do them if people support them. He can only do them if the people demand them of the legislators and of their administrators at the state capital. They've got to hear it. If they don't hear it, nothing will happen. Now, there are two things in reference to that which I will talk about. The first is that the American Dental Association, two years ago, in their House of Delegates passed a resolution in favor of the inclusion of dental care under Medicare, not Medicaid. Medicare is the insurance program for people over 65. Everybody is covered whether they are in the nursing home or not. And, if this proposed legislation ever should pass, and legislation has already been introduced, then I think the magic ingredient will have been supplied for providing dental care to the elderly people in our population, both the ambulatory and to those in long term care facilities. This is one avenue for really opening the gates to some kind of care for everybody who is over 65.

The other thing is Title XIX coverage. We were fortunate in New York State. We covered people over 65 for dental health, for dental care, and consequently there was a mechanism for paying for it. If there is a mechanism for paying for it, I think all of the other doors open up. You've got to have the means of paying for it. It was mentioned that there was a problem in Iowa, and I believe there is, in certain areas. That's another thing that I think the people in the state capital, and the people in Washington have to hear, if you expect to get dental coverage for all people over 65.

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CONCLUSIONS

James Beck*

I have been listening to today's program and feel that we may be able to come to a few conclusions about dental care in nursing homes. My task here is to summarize and arrive at some conclusions. I think we can conclude that there definitely is a lack of rules and regulations regarding oral care in nursing homes in Iowa, and that something needs to be done to rectify that situation. We can conclude that the dental status of nursing home residents in Iowa is poor. Why? What are the barriers to care? We've heard a lot of things -- that the attitudes of the patient, the patient's family, the facility staff, the medical practitioners and the dental profession itself are contributing factors. We've heard that there is a problem with time. Time itself is a barrier. It takes additional dentist's time to treat people in nursing homes; it takes additional in-service time to train people; and staff time devoted to oral care must compete with other types of needed care. Finally, we certainly know that finances are a problem. There are problems in terms of the dentist's finances in delivery of care and the nursing homes' finances in the delivery of care. We've heard that the reimbursement structure is not adequate. Medicaid does pay for some dental care. However, since dental care is only required for people under age 21 in most state Medicaid programs, some states which have previously provided care are now cutting back on that care to the over 65 population on Medicaid. Medicare may be an answer in terms of future coverage for the elderly. Also an encouraging note is that more people are becoming eligible for retirement benefits with dental care.

Finally, for some who may have thought about dental care in nursing homes as only "dentures" or "no dentures", we might conclude that dental care is complicated. There are a lot of things we didn't know about before. There are social, physical, physiological, economic, and medical factors that will

affect the successful provision of dental care. To further complicate things, we sometimes have communication problems between multidisciplined providers of care. I would be reluctant to admit myself that we have a communication problem because quite often, once you conclude there is a communication problem, people tend to say, "Well, we have a communication problem, so we don't have to do anything more about it." Let's just say that we could have some better communication in terms of a multidisciplinary approach to dental care. We've tried to make a start on that problem as part of this conference. Hopefully, we have communicated a little bit better with each other, but if there are specific aspects of oral care in nursing homes, that you would like to have addressed more fully in later sessions, let us know and we may organize more specific sessions for people with specific interests.

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