AN ANALYSIS OF PHARMACEUTICAL SERVICES
IN UTAH EXTENDED CARE FACILITIES

by

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Chairman, Major Department
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ABSTRACT

The Social Security Amendments of 1965 have created new opportunities and challenges for members of the health team to provide their professional services. Various pharmaceutical services are sought to meet the standards of the Medicare Program, however the main objectives are centered in utilizing the pharmacist's knowledge and experience in providing and improving patient care and safety. The pharmacist, when functioning as a consultant to an extended care facility, can contribute to patient care through:

1. Recognizing the need of his services in patient care.
2. Becoming aware of means to enhance the quality of patient care through his services.
3. Taking an active part in maintaining and expanding his role as a consultant.

Utah extended care facilities are presently receiving pharmaceutical services through their pharmacist consultants. The rendered services are varied and will continue to vary until functions and role expectations of the pharmacist and extended care facility are understood. The involvement of the consultant in extended care facility service and guidance programs is very limited in terms of ideological and pragmatic desires and standards, which in turn is reflected in the quality of service to patient and facility.
Recognizing the need, becoming aware, and initiating action are the keys to a successful pharmacy consultant program for an extended care facility.
The Social Security Amendments of 1965, Public Law 89-97 (Medicare), inaugurated a new era in providing for the medical needs of the aged. In 1900, there were approximately three million persons living in the United States who were 65 years of age or over. In 1975, it is estimated that there will be some twenty-one million people in this age bracket who will qualify for Social Security benefits.

The basic purpose of the Medicare Program has been to provide medical service to the elderly without depleting the savings of these individuals. In keeping with the general inflationary trend, there has been an increase in the cost of medical service, thus many of the aged have been unable to meet the added expense of medical care. The Medicare Program makes these services available to the aged. "The real significance of the Social Security Amendments of 1965, lies in the fact that there is no longer an indigent aid category of medical care for anyone over 65." ¹

As one compares the need for medical care as opposed to serviceable goods, it becomes evident that there is a distinct difference between the two.

Factors which differ include:

1. Medical care is irregular and unpredictable.
2. Cost of medical care is usually not within an individual's control.
3. The difference between a desired good and an undesired necessity.

Since each of these factors is uncontrollable, the funds allotted are determined by the degree of disability and the financial status of the recipient.

One of the major factors contributing to the Congressional approval of the Medicare Act was the increasing cost of hospital service. It is expected that hospital costs will increase up to a total of 87 percent of 1970 costs by the end of the decade. Factors which contribute to this increase are:

1. The increasing cost of medical services.
2. The expensive equipment which has low utilization.
3. Research and development in which the facility is engaged.

The twenty-five million people who will be eligible for Social Security benefits under the Medicare Program in 1980 will represent about 8-12 percent of the total population of the U.S. However, at the same time this portion of the population will utilize about 25 percent of the general hospital

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2 Ibid., p. 90.
days. The basic purpose of the Medicare Program was not to make hospital care financially accessible to the aged but to provide an insurance plan for paying the major portion of hospital and medical bills.

The hospital, while equipped to provide care and treatment for the acutely or critically ill patient, has become increasingly overcrowded and oftentimes filled beyond capacity. As the patient progresses from the concentrated and complicated medical care which is required during hospitalization, it becomes evident that he will need care of a restorative and rehabilitative nature. This type of care can be readily available through the utilization of the extended care facility previously known as a nursing home. Historically, patients were hospitalized until they could care for themselves or be cared for at home, but this concept places a great strain on the hospital facilities and is costly. The extended care facility is intended to help alleviate this condition. The nursing care available in the extended care facility is more of a restorative nature and helps the patient to regain maximum independence and hopefully leads him back into a productive life. The intent of Congress under the Medicare Act was to provide a consistent treatment regime from hospital to extended care facility to home under the supervision of the physician.

5 Jan N. Bair and others, Utah Pharmacy Consultant Program (Salt Lake City: University of Utah Press, 1969), p. 6.

6 Ibid., p. 4.
THE PROBLEM

Statement of the Problem

The Medicare Program enacted by Congress in 1965 has brought increasing responsibility to members of the health team. The administrator of the extended care facility in discharging his duties has a responsibility to provide optimum medical care by the health team members. Although the administrator is responsible for total operations, he cannot discharge certain responsibilities which must be assumed only by competent and qualified individuals. Within this area, we have the pharmaceutical services provided through the assistance of a licensed pharmacist. The pharmacist is the only individual qualified by law and training to perform the pharmacy functions that are necessary for an adequate and safe health care program.

The purpose of this study was (1) to investigate the present pharmaceutical services being offered to the patient in the extended care facility, (2) to determine the quality of the service rendered, (3) to examine the deficiencies, (4) to determine the extent to which the pharmacist is accomplishing the objectives of the Medicare Program.

The nature of pharmaceutical services in the extended care facility is different than in retail pharmacy in that (1) the patient in the facility cannot adequately care for himself, (2) there exist a concentration of drug usage in the facility, (3) drug administration is assumed by a third party, (4) it is a responsibility of the facility to promote better patient care by education and training to
improve techniques in all areas.  

Importance of the Study

This study will (1) aid the pharmacist to know or become aware of the relative weak points in the services being offered to the extended care facility, (2) produce an insight to the extended care facility in order that the pharmacist consultant can be utilized to a greater extent, (3) aid to provide better pharmaceutical service for the over-all treatment and recovery of the patient.

DEFINITIONS OF TERMS USED

Extended care facility (ECF). An institution or distinct part of an institution, which has in effect a transfer agreement with one or more hospitals and which fulfills the following requirements:

1. Is primarily engaged in providing skilled nursing care and related service or rehabilitation services.
2. Has policies developed with the advice of a group of professional personnel including one or more physicians and one or more registered professional nurses.
3. Has a physician, a registered professional nurse, or a medical staff responsible for the execution of such policies.
4. Has a requirement that the health care of every patient must be under the supervision of a physician, and a physician is available for emergencies.

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5. Maintains clinical records on all patients.
6. Provides 24 hour nursing service sufficient to meet nursing needs and has at least one registered professional nurse employed full time.
7. Provides appropriate methods and procedures for dispensing and administering of drugs and biologicals.
8. Has in effect a plan for Utilization Review which applies at least to the services furnished by the facility to individuals entitled to benefits under Title XVIII (Condition of Participation 405.1137).
9. Is licensed in accordance with State law.
10. Meets conditions relating to health and safety of patients.

Compounding. The mixing, combining, selecting, measuring, counting, or otherwise preparing the drug for dispensing either to an individual patient or to a nursing station.

Drug dispensing. Those functions which are by custom, law, and tradition, restricted to a licensed practitioner of pharmacy. Drug dispensing involves:

1. The dispensing of one or more doses of a medication in containers other than the original, these new containers being labeled by the pharmacist as to contents and/or directions for use as directed by the prescriber.
2. The issuance of medication in its original container with a pharmacy prepared label that carries to the patient the directions of the prescriber as well as other vital information, or the package carries a label prepared for nursing station use in a hospital or nursing home.

Drug administration. Primarily a nursing function which involves the administration of a single dose of medication to a patient by a nurse as a direct result of an order by a physician or other licensed prescriber.

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8 Fair, op. cit., p. 4.
9 Ibid., p. 23.
Pharmacy. A duly licensed pharmacy which is involved in the traditional functions of compounding and dispensing of medicaments.

Medication storage unit or drug room. A location in which legally prepared and precompounded drugs are stored prior to their administration to a patient.

Pharmacist consultant. A pharmacist appointed by a facility to advise and monitor the drug program which is implemented in the medical care of the patient within the facility.

Medication utilization. The usefulness and function of drugs and drug therapy. In regard to the facility, the use, value and purpose medications perform in the care of the patient.

Registered nurse (R.N.). Any person who is registered and licensed by the Utah Department of Business Regulation (Department of Registration) to practice as a registered nurse.

The term 'practice of professional nursing' means the performance for compensation of any act in the observation, care and counseling of the ill, injured or infirm, or in the maintenance of health, prevention of illness of others, or in the supervision and teaching of other personnel, or the administration of medications and treatments as prescribed by a licensed physician, dentist, or other licensed medical practitioner, which acts require substantial specialized judgment and skill and are based on knowledge and application of the principles of the biological, physical and social sciences. The foregoing shall not be deemed to include acts of diagnosis or prescription of therapeutic or corrective measures. (Section 58-31-4 (5), Utah Code Annotated 1953, as Amended).

Licensed practical nurse (L.P.N.). Any person who is registered and licensed by the Utah Department of Business Regulation (Department of Registration-
The term 'practice of practical nursing' means the performance for compensation of acts in the care of the ill, injured or infirm under the directions of a registered nurse, licensed physician, a licensed dentist, or other licensed medical practitioner, by one having the substantial specialized skill, judgment and knowledge required in practical nursing. (Section 58-31-4 (6), Utah Code Annotated 1953, as Amended).

SCOPE AND LIMITATIONS OF THE STUDY

Application to Utah

The pharmaceutical services being rendered to the extended care facility vary according to the demands of the facility, as well as size, organization, policy and procedures of the facility. Frequently, this service will vary with the individual pharmacist. His involvement will depend upon the type of program, time and the physical setting with which he is involved.

The lack of time, financial backing and man-power resources have limited this study to Utah. This study will make no attempt to review or evaluate the pharmaceutical services offered on the national level.
CHAPTER II

REVIEW OF LITERATURE

Individuals, organizations and various governmental agencies have conducted studies and investigations on the pharmaceutical services being offered to the extended care facility (ECF). The following topics will cover most services in the Medicare Program.

CONDITIONS OF PARTICIPATION

The conditions of participation for pharmaceutical services in an extended care facility are defined in Public Law 89-97. The rules and regulations which govern the condition of participation are included in appendices A. and B.¹

OBJECTIVES

The objectives of pharmaceutical service in the extended care facility are intended to utilize the pharmacist's knowledge and experience in providing

¹Conditions of Participation; Extended Care Facilities (extracted from Federal Register, Volume 32, Number 210, October 28, 1967, Washington D. C.), Title 20 Employees Benefits, Chapter III-Social Security Administration Dept. HEW (Reg. No. 5) Part 405 Federal Insurance for the Aged, Subpart K-Conditions of Participation: Extended Care Facilities.
and improving patient care and safety. The main responsibilities which concern
the consultant in addition to his routine pharmaceutical functions are:

1. To develop pharmaceutical service policies and procedures.
2. To develop better drug control and handling.
3. To provide consultation with the various health team members.
4. To provide in-service training and education.

METHODS OF PHARMACEUTICAL SERVICE

The methods, by which the necessary pharmaceutical services in the
extended care facility are accomplished, vary depending upon the size, organi-
ization, policy and procedures of the facility. These methods have been classi-
fied as follows:

1. No pharmacy in the facility
   a. Working agreement with a community pharmacist
   b. Serviced by a pharmacist of a hospital

2. Licensed pharmacy in the facility
   a. Pharmacist on duty "continuously"
   b. Pharmacist on duty at intervals\(^2\)

ELEMENTS OF INSTITUTIONAL PHARMACY SERVICE

The American Society of Hospital Pharmacists has promoted
the following elements of institutional pharmacy service which

\(^2\)ANHA, APA, and ASHP, *Pharmaceutical Services in the Nursing Home*,
cit., p. 28.
have been embodied for the most part in the Medicare Law. 3

Distribution and Control of Drugs

Within the hospital and extended care facility, it is found that the distribution of drugs is somewhat different than in community practice of pharmacy. It is also found that there now exists within this particular type of setting a third party who will assume the responsibilities of administering the medication.

The implication of such a third party results in medications dispensed by the pharmacist ready for administration to the patient as current as the pharmaceutical technology will provide. 4

The methods of distributing drugs include an individual prescription order system, complete floor stock system and a combination of both. 5

Individual prescription order. In this system all medications are dispensed by the pharmacist on individual prescription orders. The individual order for each medication for each patient provides the greatest overall control. The concept of unit dose involves supplying of an individual dose at the required time rather than providing the nursing station with a one day or greater supply for the patient. This is a refinement of the individual prescription order. The

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4 Ibid.
5 Ibid.
advantages which exist with the individual order system include:

1. Avoidance of medication errors by having the pharmacist review at least a transcription of each prescription order before the drug is dispensed.
2. Coordination of patient's drug program through closer liaison among pharmacist, nurse, and physician in medication errors.
3. Close control of inventory.
4. Proper control of revenue.

Disadvantages which may exist with the individual prescription order system are:

1. Possible delay in obtaining medication for administration to patient.
2. Increased personnel expense.

Complete floor stock method. This particular system utilizes the stocking of all drugs on the nursing station. There arises a great problem of control and frequent errors when utilizing this system. The nurse frequently performs the dispensing function that the pharmacist should perform. The advantages for the floor stock system are:

1. Quick availability of most drugs to the nurse and physician assigned to the nursing station.
2. Fewer inpatient prescription orders.
3. Minimized return of medication.
4. Reduced pharmacy personnel requirements.

The disadvantages encountered include:

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7 Ibid.
8 Ibid.
1. Increased potential for medication errors resulting from lack of review by the pharmacist of each individual patient medication order.
2. Financial loss due to misappropriation of medication by personnel and administration of medication to patient without initiating charges.
3. Increased drug inventory.
4. Increased cost of drug losses due to obsolescence and deterioration.
5. Limited capacity for proper storage facilities on the nursing stations in many hospitals.
6. Increased danger of unnoticed drug deterioration jeopardizing patient safety.

Combination of both. The combination system of providing individual prescription orders as their primary means of dispensing and limited floor stock items is the most commonly used system in the institutional setting. The advantages and disadvantages would be the total combination of each system separately.

If properly balanced, the best features of each may be realized.  

Pharmacy and Therapeutics Committee

The Pharmacy and Therapeutics Committee is a committee composed of physicians and a pharmacist who serve as the organizational line of communication of liaison between the medical staff and pharmacy department as well as a policy recommending body to the institution on all matters related to the use of drugs. The primary purposes of the committee are:

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9 Ibid.

10 Ibid.
1. ADVISORY - The committee recommends the adoption or assists in the formulation of broad professional policies regarding evaluation, selection, procurement, distribution, use, safe practices, and other matters pertinent to drugs in the institution.

2. EDUCATIONAL - The committee recommends or assists in the formulation of programs designed to meet the needs of the professional staff (physicians, nurses and pharmacists) for complete current knowledge on matters related to drugs and drug practices.11

The importance of such a Committee can be illustrated by listing some of the functions:

1. To serve in an advisory capacity to the medical staff and pharmacy in the selection or choice of drugs which meet the most effective therapeutic quality standards.

2. To evaluate objectively clinical data regarding new drugs or agents proposed for use in the hospitals.

3. To recommend additions or deletions from the list of drugs accepted for use in the hospitals.

4. To review reported adverse reactions to drugs administered.

5. To evaluate periodically medical records in terms of drug therapy.12

Hospital Formulary System

The definition in the Statement of Guiding Principles on the Operation of the Hospital Formulary System is:


12 Odis, op. cit.
The hospital formulary is a continually revised compilation of pharmaceuticals which reflects the current clinical judgment of the medical staff. The system provides for the procuring, prescribing, dispensing and administering of drugs under either their non-proprietary or proprietary names in instances where drugs have both names. The hospital formulary system is sponsored by the hospital medical staff based upon recommendations of the Pharmacy and Therapeutics Committee. The medical staff adopts rules which serve as guidelines in implementation of the hospital formulary system. The system involves the entire hospital medical staff. The role that the pharmacist plays is integrated with the Pharmacy and Therapeutics Committee. It is his responsibility to ascertain that specifications for quality, quantity, and source of supply for all drugs, chemicals, biologicals and pharmaceutical preparations used in diagnosis and treatment are met. He must insure that quality is not compromised for economic considerations.

Automatic Stop Orders

Automatic stop orders are essential to prevent the possible continuance of potentially harmful drugs to the patient without surveillance of the patient's response and need for the drug. The stop order policy is developed by the physicians and pharmacists of the institution. Stop orders provide guidance in instances where medications have not been specifically limited as to the duration of time.

In-service Training and Education

Since the pharmacist is considered a source of drug information, it becomes evident that he should be involved in transmitting information to nursing personnel and others who are involved with drug handling and usage. Particular emphasis in this program is placed on such matters as side effects and contraindications, dosage, allergic manifestations, new techniques for administration, and new drug information.
CHAPTER III

PHARMACEUTICAL SERVICES IN EXTENDED CARE

FACILITIES IN UTAH

METHODOLOGY

This investigation was conducted by surveying those extended care facilities which were qualified under the Medicare Program in Utah. The standards and qualifications for coverage under the program are outlined in a previous chapter. The administration of such a program is carried out by a third party insurance carrier. In Utah, Blue Cross-Blue Shield is the third party agency. Through the efforts of Blue Cross-Blue Shield, a list of one hundred and forty-five ECFs (extended care facilities) in Utah was compiled. However, from the one hundred forty-five ECFs, there were only fifteen which were qualified under the Medicare Program. These fifteen were the sample for this study.

A questionnaire, see Appendix C, was prepared containing questions in regard to the pharmaceutical services which were offered to the facility. Sixty percent of the facilities queried responded by returning the questionnaires which were sent to them. The number of replies was deemed to be a representative sample.
The Utah State Hospital and ECF Regulations and Registry Department provided a corresponding list of pharmacist consultants for each of the ECFs which qualified under the Medicare Program. In hopes of presenting an unbiased study, a similar questionnaire was mailed to each of these consultants. However, due to the relatively small return of 13 percent, it was felt by the author that the sample would not be representative. It was noted that the responses were in general consistent with those from the ECFs.

STUDY RESULTS

The reported total bed capacity of the ECFs which qualified under the Medicare Program in Utah ranged from 51 to 110 beds. The total number of beds represented in this study was 637 with an average of 77 beds per facility. The total number of beds which were utilized for Medicare patients was 189 with an average of 21 beds per facility. Intensive nursing care which provides an R.N. on duty 24 hours a day was indicated in 78 percent of the facilities. The remaining 22 percent utilized skilled nursing consisting of either an R.N. or L.P.N. on duty 24 hours a day. Chart 1 compares the bed capacities with staffing of R.N.s and L.P.N.s.

The facilities employed a total of 32 professional personnel other than R.N.s and L.P.N.s with an average of 3.6 per facility. The professional personnel included physical therapists, dieticians, social and occupational therapists, pharmacists and other medical technicians. It was noted that when the
Number of R.N.s and L.P.N.s

Comparison of number of Registered Nurses (R.N.) and Licensed Practical Nurses (L.P.N.) in Utah extended care facilities
Medicare patients were designated to a separate area of the ECF in keeping with Medicare requirements, there was an average of 6 employees assigned to that area. This would indicate that one professional individual was assigned to every 3.5 Medicare patients.

As was discussed previously, pharmacy utilization is divided into four main types of dispensing units. Table 1 illustrates the types of dispensing units and their relative use in the ECFs in Utah.

The present involvement of the pharmacist in providing guidance in functioning as a consultant:

1. 100 percent of the consultants provided or serviced an emergency kit for patient emergencies. These kits were also periodically inspected for used or outdated medications.

2. 100 percent of the consultants provided consultation on medication utilization and proper pharmacy service.

3. 89 percent of the consultants periodically checked the drug room at the facility for proper handling and storage of drugs.

4. 67 percent of the consultants instructed the nursing staff as an in-service education program.

5. 56 percent of the consultants provided knowledge in the use, fitting and maintenance of orthopedic equipment.

6. 44 percent of the consultants were members of the Pharmacy and Therapeutics Committee.
Table 1

Percent of ECFs which utilize the various types of dispensing units
noted:

7. 33 percent of the consultants aided in the review of drug cards and drug profiles of the patient.

8. 22 percent of the pharmacists consultants aided in the selection of medications for the patient.

9. 11 percent of the consultants aided in the preparation of drug cards and drug profiles.

In providing traditional pharmaceutical service to the ECFs, it was noted:

1. 100 percent of the consultants provided an on call 24 hour service.

2. 100 percent of the consultants provided an adequate billing method which allowed individual charges to be transferred readily to the patient's total ECF billing.

3. 89 percent of the consultants consulted physicians for authorization for continuance or refilling of drugs.

4. 67 percent of the consultants maintained a file of drug product information for the facilities' reference.

The analysis of pharmacy functions revealed that in addition to the standard medication labeling such as patient name, physician name and directions, all facilities were furnished with the name and strength of medication on their labels. Information also included on labels:

1. 78 percent of the facilities were furnished with the manufacturer's
2. 89 percent of the facilities were furnished with the manufacturer's lot or control numbers.

3. 11 percent of the facilities were furnished with stop order instructions.

The ECFs' replies indicated that the automatic stop orders on medications were known and properly interpreted by all pharmacist consultants as was indicated. All facilities felt that (1) the pharmacist was aware of automatic medication stop orders, (2) the consultant properly interpreted these orders.

Due to the importance of properly applying and controlling these orders, the responses in this area were examined and the following statistics were formed:

1. 67 percent of the facilities reported that medications without a specific time limit were discontinued after seven days.

2. 67 percent reported that narcotics were discontinued after seventy-two hours, unless reordered.

3. 78 percent of the facilities reported that no drug was given for longer than ninety days without a written renewal by the physician.

4. 89 percent reported that physicians were notified by either ECF personnel or the pharmacist prior to medication discontinuance.

The frequency or time interval at which the consultant visited the facility was from once daily to every 3 months. Figure 2 indicates the frequency at which
Figure 2

Comparison of the percentage of facilities and the time intervals at which consultant visited extended care facilities.
the consultant visited the facility. Further breakdown of the frequency of visits by the consultants to the responding ECFs is shown in Table 2. One of the nine responding facilities did not answer this particular question. However, in general most ECFs were visited by the consultant on a monthly basis. The tabulated data indicated no relationship between facility size and the frequency of visits.

As drug problems develop within a facility, conferences are held with the nursing staff to resolve these problems. It was indicated that 89 percent of the ECFs have conferences and 11 percent do not have conferences. The frequency at which the conferences were held varied from as required to once every 3 months. Table 3 is the tabulated data regarding the frequency of conferences with the nursing staff and the bed capacity of the ECF. Two of the nine facilities left this particular question unanswered. No relationship between the frequency at which conferences were held and facility size was established.

The average rating given pharmacy consultants in the general availability of medications on a rating scale of 1 to 7 (1 being poor and 7 being excellent) was 6. The tabular results of the ratings by each facility are indicated in Table 4. The results indicate no association of facility size and the general availability of medications.

Table 5 shows the tabular results of the ECFs in rating the pharmacist consultant in the dispensing of medications. In a rating scale of 1 to 7 (1 being poor and 7 being excellent), the pharmacist consultants received an average rating of
Table 2

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<th>Bed capacity</th>
<th>51</th>
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<th>63</th>
<th>64</th>
<th>68</th>
<th>75</th>
<th>98</th>
<th>108</th>
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<tr>
<td>Frequency of visits</td>
<td>Monthly</td>
<td>Every 3 months</td>
<td>Weekly</td>
<td>Monthly</td>
<td>Monthly</td>
<td>Monthly</td>
<td>Monthly</td>
<td>Daily</td>
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Frequency of visits by pharmacist consultants to ECFs tabulated by bed capacity.
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<th>Bed capacity</th>
<th>51</th>
<th>54</th>
<th>63</th>
<th>64</th>
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<th>75</th>
<th>98</th>
<th>108</th>
<th>110</th>
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<tbody>
<tr>
<td>Frequency of conferences</td>
<td>As needed</td>
<td>Quarterly</td>
<td>Unanswered</td>
<td>Unanswered</td>
<td>Monthly</td>
<td>Monthly</td>
<td>As needed</td>
<td>Monthly</td>
<td>5 or 6 times yearly</td>
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Table 3

Frequency of conferences that the consultants held with nursing staff tabulated by bed capacity
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Table 4

Ratings of the pharmacy consultants in the general availability of medications by the extended care facilities tabulated by bed capacity.
(1=poor, 4=average, 7=excellent)
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<th>Bed capacity</th>
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Table 5

Extended care facilities' response in rating the pharmacist consultant in dispensing of medications tabulated by bed capacity
(1=poor, 4=average, 7=excellent)
6. No relationship was established between the size of the ECFs and the dispensing of medications by the consultants.

The pharmacist consultants received an average rating of 6 in the actual delivery of medications to the facilities. This was based on a rating scale of 1 to 7 (1 being poor and 7 being excellent). Table 6 indicates the various ratings that the consultants received from the facilities. No relationship between size of the ECF and the actual delivery of medications to the ECF was found.

The frequency at which medications were delivered to the facility was not dependent on the size of the facility. Generally, deliveries were made once daily. Seventy-eight percent of the facilities received deliveries once daily while the remaining twenty-two percent left this unanswered.

Information on the use and fitting of orthopedic equipment and sick room supplies was provided in 56 percent of the facilities. The percentage of consultants rendering this service is as follows:

1. 22 percent of the consultants provided wheelchair utilization and maintenance.
2. 33 percent provided utilization and maintenance on convalescent equipment.
3. 33 percent provided and maintained therapy equipment to suit the needs of the therapist and physician.
4. 67 percent provided colostomy and ileostomy appliances, supplies and professional instructions.
Extended care facilities' response in rating consultants in actual delivery of medications to the facility tabulated by bed capacity

(1=poor, 4=average, 7=excellent)

Table 6

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The general over-all services which were provided by the pharmacist consultant were rated by the ECFs. The average rating that the consultants received was 6. The 1 to 7 rating scale was again used to rate the services. Table 7 indicates the rating results by the ECFs. A relationship between size of the ECF and the over-all services provided by the consultant was not noted.
Table 7

Extended care facilities' response in rating the pharmacist consultant in the over-all services provided by him tabulated by bed capacity.
(1=poor, 4=average, 7=excellent)
CHAPTER IV

DISCUSSION

The average number of beds in the extended care facilities surveyed in this study is larger than the national average of forty one.\(^1\) This may be indicative of a relatively large number of elderly people in Utah or that in conducting the survey only those ECFs which were qualified under the Medicare program were considered. It is likely that only the larger facilities in Utah were able to meet the Medicare standards.

Generally, most facilities in the state (78 percent) provide intensive nursing care in which an R.N. is on duty 24 hours per day. This includes a concentrated care unit providing close nursing supervision and a skilled nursing care unit which is designed to encourage socialization of patients into therapeutic groupings requiring less nursing care. The survey indicated that twenty-two percent of the facilities utilized the skills of either an R.N. or L.P.N. during the 24 hour period. The ratio of R.N.s and L.P.N.s to patients in this study was 1:13 which was below the recommended ratio of 1:9.\(^2\)

As was expected the ECFs in Utah utilized mainly the in-facility drug

\(^1\) Bair, op. cit., p. 2.

room rather than the hospital connected dispensing unit, licensed in-facility pharmacy, or unit dose concept. Due to the relative high cost of furnishing a full pharmacy stock and the cost of a salaried pharmacist, the in-facility drug room type of dispensing system blends well into the institution. The advantages of such a system are discussed in Chapter II.

**DIRECT PRESCRIPTION SERVICE**

The results of the survey indicate that the pharmacist consultant is considered chiefly a source of medication rather than a source of knowledge about drugs and their use. This would tend to indicate that:

1. The ECFs do not realize the potential of the pharmacist in this respect.
2. The physician does not realize this potential.
3. The pharmacist does not recognize his own potential.
4. A lack of communications with all parties concerned in not utilizing all available services.

Before going on in this particular area, an expansion of the deficiencies which were noted should be made. Due to the large number and variety of drugs available to the physician, it is apparent that it is almost impossible for him to keep abreast of all new drugs which are available or being developed for use in the medical field. The proper use of the pharmacist's knowledge of drugs by the nursing staff and the physician could be extremely valuable in monitoring drug
use in these facilities. With the knowledge that the pharmacist maintains
about drugs or the sources which are available to him, he could very well aid
the physician, in a particular instance, in the selection of a particular drug for
a specific condition. Only twenty-two percent of the ECFs in the state have
the pharmacist consultant actively engaged in the selection of drugs for the
patient.

While in the process of keeping alert in patient drug use, it is essential
for the pharmacist to review the patient's medication usage in the facility.
This study indicated that the consultant takes a fairly active role in reviewing
the patient's medication record. In doing so, the pharmacist has the opportunity
to detect potential interactions of drugs as well as sensitivities and allergic
responses. Although the actual preparation of medication records may not be a
pharmacy function, the responsibility for reviewing and making recommendations
is a pharmacy function. Three of the nine responding facilities had the pharma-
cist engaged in their review. The actual preparation of drug cards and drug
profiles in Utah facilities was performed by pharmacists in 1 out of 9 facilities.

Pharmaceutical services provided by the pharmacist consultants whether
dictated by law or performed as voluntary functions, were shown to be fairly
consistent in all facilities.

As described in Standard A Factor 3 of the Conditions of Participation of
ECF, "An emergency medication kit approved by the facility's group of profes-
sional personnel is kept readily available." In adhering to this condition, the
consultants in this survey provided or serviced an emergency kit. The consultants periodically inspected these kits for used and out-dated drugs. The proper maintenance of these kits is essential in facilitating the medical emergencies which often occur in these institutions.

The ratings in Table 7, reveal that the performance of the pharmacist in providing basic pharmacy service is above average in most areas. The general availability of medications is considered having the required drug in stock to readily complete an order. In general, the consultants were considered to be above average in the general availability of medications as indicated in Table 4.

Dispensing, as defined by Sprowls, includes, "reading the prescription, checking the prescription order for safety, compounding, and/or measuring the medication, packaging the medication, labeling the prescription, checking the prescription, recording information on the prescription and filling the prescription." The pharmacist's responsibility would necessitate that the medication order is correctly and accurately filled to provide the right drug for the right person at the right time. The consultants in this study were rated (see Table 5) to be above average by the institutions in their dispensing function. The mean rating in this category was 6.

Availability and dispensing are important considerations of service, but another aspect which is also vital to the institution is the actual delivery of

---

drugs for utilization. Without the physical presence of medications, it is impossible for the nurse to administer to the patient. The majority of facilities in this survey feel that their consultants are above average in this function. The consultants received a mean rating of 6 in this category.

PHARMACEUTICAL GUIDANCE

The function of providing consultation to the institution in regard to the proper usage of medication is an essential service. The consultant should advise the facility in regard to Standards in the Conditions of Participation of the Extended Care Facility under the Medicare Act to insure that these standards are maintained. The survey indicated that all consultants to Utah ECFs do provide proper pharmaceutical guidance.

The maintenance and storage of medications are a prerequisite for efficient drug handling. Without noting proper storage, shelf life and dispensing of potentially dangerous drugs, the patient would not be assured of quality drug control. The Utah consultants generally assumed responsibility to inspect the systems which were maintained in the institution. Eight of the nine ECFs' drug rooms were periodically inspected by the consultant to insure that the standards as described in the Conditions of Participation were being met.

Drug therapy in the ECF is a prolonged and continued type of therapy since many of the patients are affected by one or more chronic conditions. However, in the treatment of such conditions it is vital that the pharmacist be
in continual contact with the physician to insure proper drug regimen. It is a responsibility of the pharmacist to acquire the proper authorization for reordering and renewing drugs for the patients. The ECFs in Utah feel Utah pharmacist consultants assume the responsibility for this function. Eighty-nine percent of the consultants contacted the physicians for authorization for continuance or refilling of drugs.

As the medical treatment of the patient proceeds, the nursing staff undoubtedly is confronted with many drug problems. Some of the problems which are encountered are drug interactions, overdoses, incompatibilities, etc. In order to help meet these problems it is essential that the consultant communicate with the nursing staff. The best mechanism of communication is conferences with the staff for the purpose of discussing and analyzing the various problems. The pharmacists in this study are involved in this function. Table 3 indicates that these conferences are held in seven of nine ECFs.

In the discussion which was presented earlier in regard to the pharmacist's education and training, it is apparent that the consultant should assume a role of educator and instructor to the nursing staff in an in-service education program. The material presented in this program should consist of facts and data regarding drugs, their safe use and effects.

The frequency at which conferences are held with the nursing staff to resolve drug problems indicates that the pharmacist again has an unlimited opportunity to provide his services. However, the pharmacist has not for some reason
taken advantage of this opportunity to display a professional approach to his role as an instructor or educator. Although conferences were held from as needed to quarterly, it would be advantageous if a regular schedule of meetings could be held which would expose the pharmacist to drug problems. These conferences would be used to inform and educate the nursing staff to advances in the medication field.

Under the Conditions of Participation of Extended Care Facilities, it is clearly defined that "up to date medication references, texts and sources of information are provided for use in the institution." However, according to this study, a deficiency exists in this area. It was indicated that 67 percent of the consultants maintained a file of drug product information for the facilities' reference. Although many of the facilities did have current research literature available, it was implied in the questionnaire that most of this literature was furnished and monitored by the institution directly rather than by the pharmacist.

In providing total pharmaceutical service, it is vital that the pharmacist perform as a member of the Pharmacy and Therapeutics Committee. In a previous discussion, the functions of such a committee were noted to be advisory and educational in nature. In this study, only four institutions had a consultant actively participating in this function.

The addition of an intermediate member or R.N. to function in the capacity as an administrator of medications necessitated that various routine
labeling practices be expanded to insure drug safety. In determining whether the pharmacist has complied first with Medicare requirements and second with additional voluntary services, it was discovered that most pharmacists do adhere to the standards established by the Medicare program. Only one ECF received additional information beyond that of Medicare requirements.

The investigation which dealt with the area of automatic stop orders on medications indicated that the pharmacist was aware of the stop orders. Discrepancies which were noted indicated that the stop orders, if properly interpreted, were not being fully complied with according to the regulations of the State. In areas of the questionnaire dealing with items such as narcotic orders, drugs without specific time limits and the length of time drugs were given, which should have had one hundred percent compliance, it was noted that results of compliance ranged from sixty-six to eighty-eight percent.

To facilitate a program of service and usefulness, it is important that the consultant frequently visit the facility to inspect and advise in drug utilization. Since many of these functions must be performed within the institution, the pharmacist must visit on a regular basis to provide a comprehensive drug service. Results indicate that most consultants in this survey visit the facilities at least once monthly.

AUXILIARY PHARMACEUTICAL SERVICES

Another important aspect of pharmacy service which may be provided to
the extended care facility are those services which are provided on a voluntary basis. These services, although not directly responsible for the recovery of the patient aid in a faster and more efficient rehabilitative program.

A twenty-four hour on call service by the consultant would provide the facility with adequate coverage for any emergency which may occur. Since medical care is not limited to an eight hour day, it is essential that the consultant be available to provide medication or his knowledge about the various drugs to the institution at any time. All consultants in the survey provide this essential service to the facilities.

In order to furnish a service to the institution and patient, it is imperative that charges for services and medications be readily transferable and charged to the patient or any other liable party. The method should be accurate and current to facilitate a speedier return of payment for both the facility and the pharmacist. While consideration for payment is a secondary matter in regard to the patient's care, it is an aspect which must be functional to provide total comprehensive care of high quality. As was indicated in this study, all pharmacists in the survey provided methods which were acceptable to the ECFs. Although some questions and complaints were encountered in regard to the administration of the Medicare program as to the length of time for payment and the paperwork entailed, it was felt by most ECFs that present methods of payment were acceptable.

Other auxiliary services which in an indirect manner would facilitate
the recovery of the patient include various areas such as orthopedic equipment fitting and furnishing, supplying sick room supplies and appliances, and competent advice on their use and maintenance. These areas provide an unlimited opportunity for the pharmacist to render his service as well as possibly expand his business. The relatively weak response which was indicated in this particular area reveals that very little service has been offered to the institution and patient. Whether the consultant is unaware of his opportunities or lacks training in this field, the need and the demand for the service is present. Results indicate that less than fifty percent of the consultants are actively engaged in these areas.
CHAPTER V

SUMMARY AND RECOMMENDATIONS

This study was undertaken to analyze the pharmaceutical services presently being offered to the patient in the extended care facility. Specifically, an attempt was made to answer the following questions:

1. Are the present pharmaceutical services being extended to the patient and ECF adequate?

2. Has the pharmacist consultant actively taken a role in performing various services for the patient and ECF?

3. Has the pharmacist consultant and ECF accomplished the objectives of the Medicare program?

The pharmaceutical services which are currently offered to the extended care facility in Utah are adequate in complying with those regulations which are stipulated. The services were divided into three main discussion topics as follows: direct pharmaceutical service, pharmaceutical guidance and auxiliary pharmaceutical services. Each of these functions with tenant strong points and weak areas have been discussed in this paper.

Each of the extended care facilities in Utah presently have the consultant involved in service or guidance programs, however, this involvement is very limited in terms of the ideological and practical desires and standards.
which have been recommended by prominent individuals in the pharmacy field. The author feels that the limitations which occur are a direct result of the misinterpretation of the role and function of a consultant. ECFs have perhaps established some preconceived ideas as to how the consultant should function or possibly do not understand the role that the pharmacist consultant may play in the extended care facility, either of which may be detrimental to the pharmaceutical services that the consultant should and could provide. Therefore, defining the role of the pharmacist consultant to the facility and functioning in coordination with the facility are imperative criteria for a quality program.

Under the requirements governing the pharmaceutical services of the Medicare Program, Utah consultants are complying with the conditions outlined by the Social Security Administration. However, those services presently being offered are those which are mandatory as opposed to total pharmaceutical services. Thus we find compliance to the letter of the law without use of the additional knowledge and skills of the pharmacist which could contribute to health care.

QUANTITY OF SERVICE

The results of this study indicate that the quantity of pharmaceutical services presently being offered by the consultants in this study is very limited. No relationship between the size of the facility and the quantity of services was found to exist. This would tend to imply that most ECFs are in general, being serviced in much the same manner.
QUALITY OF SERVICE

Essentially quality service depends upon recognizing the need for pharmaceutical services, becoming aware of these services, and initiating the action to provide these services. As was indicated earlier, those pharmacists who were considered excellent in their performance were those who participated on a larger scale and provided more comprehensive services. Quality service is reflected by understanding and utilizing the services which the consultant can provide.

UTILIZATION OF RESOURCES

Another factor contributing to the quality and quantity of pharmaceutical services, is the improper utilization of available resource material. The training and knowledge of the consultant has not been employed to enhance health care in the institution. By utilizing this resource it is possible to strengthen the link between patient diagnosis and patient recovery.

LACK OF SERVICE

The lack of services may be attributed to the following:

1. Many pharmacists may be unaware of means to provide services which would enhance the quality of patient care.

2. Many extended care facilities are apathetic toward pharmaceutical services.

3. Many physicians fail to utilize the pharmacist as a source
of drug information.

4. There exists poor communication and little comprehension of the various roles contributing to the care of the patient in the extended care facility.

RECOMMENDATIONS

In light of the preceding findings, the following recommendations are made as possible means of improving pharmaceutical services in the extended care facility in Utah:

1. Seminars which will clarify the role expectations of both pharmacist and facility.

2. Continuing education programs for the pharmacists to teach him new techniques and advances in the drug field.

3. Alterations in the pharmacy curriculum to provide orientation to disease processes. This would enhance the pharmacist consultant role.

4. A committee appointed by the Utah State Board of Pharmacy or the Utah Pharmaceutical Association, to provide a list of pharmacists qualified to serve in the capacity of a consultant, thus providing a catalog which the institution can use in selecting a pharmacist.
5. Initiation of a program to certify pharmacist consultants. This would insure that qualified and competent individuals would receive special education and training in the consultant role.

6. Establishment of contractual policies between the ECFs and consultants, which would offer remuneration to the consultant for his services and create incentive to enter this field.

7. Utilization of the pharmacist consultant by the institution as a functioning member of the health team and a resource, rather than seeking him only for his dispensing skills.

8. Educating the extended care facilities and physicians of the value and contribution that the pharmacist consultant could provide.
BIBLIOGRAPHY

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B. PUBLICATIONS OF THE GOVERNMENT


C. PERIODICALS


D. ADDRESS


E. OTHER SOURCES


APPENDIX
APPENDIX A

HEALTH INSURANCE OF THE AGED

Conditions of Participation of Extended Care Facilities

VIII. pharmaceutical services

Whether drugs are generally procured from a community pharmacy or stocked by the facility, the extended care facility has methods and procedures for its pharmaceutical services that are in accord with accepted professional practice.

standard A

The extended care facility provides appropriate methods and procedures for the dispensing and administering of drugs and biologicals developed with the advice of a staff pharmacist, a consultant pharmacist or a pharmaceutical advisory committee which includes one or more licensed pharmacists.

Factor 1--If the extended care facility has a pharmacy department, a licensed pharmacist is employed to administer the pharmacy department.

Factor 2--If the facility has only a drug room where bulk drugs are stored--
   a. The consultant pharmacist is responsible for the control of all bulk drugs and maintains records of their receipt and disposition.
   b. The consultant pharmacist dispenses drugs from the drug room, properly labels them and makes them available to appropriate licensed nursing personnel. Wherever possible, the pharmacist in dispensing drugs works from the prescriber's original order or a direct copy.
   c. Provision is made for emergency withdrawal of medications from the drug room.

Factor 3--An emergency medication kit approved by the facility's group of professional personnel is kept readily available.

standard B

All medications administered to patients are ordered in writing by the patient's physician. Verbal orders are given only to a licensed nurse, immediately reduced to writing, signed by the nurse and countersigned by the physician within
48 hours. Medications not specifically limited as to time or number of doses when ordered are automatically stopped in accordance with written policy approved by the physician or physicians responsible for advising the faculty on its medical administrative policies.

Factor 1—The charge nurse and the prescribing physician together review monthly each patient's medications.

Factor 2—The patient's attending physician is notified of stop order policies and contacted promptly for renewal of such orders so that continuity of the patient's therapeutic regimen is not interrupted.

Factor 3—Medications are released to patients on discharge only on written authorization of the physician.

standard C

All medications are administered by licensed medical or nursing personnel in accordance with the medical and nursing practice acts of each state. Each dose administered is properly recorded in the clinical record.

Factor 1—The nursing station has readily available items necessary for the proper administration of medication.

Factor 2—In administering medications, medication cards or other state approved systems are used and checked against the physician's orders.

Factor 3—Medications prescribed for one patient are not administered to any other patient.

Factor 4—Self-administration of medications by patients is not permitted except for emergency drugs on special order of the patient's physician or in a predischarge program under the supervision of a licensed nurse.

Factor 5—Medication errors and drug reactions are immediately reported to the patient's physician and an entry thereof made in the patient's clinical record as well as on an incident report.

Factor 6—Up-to-date medication reference texts and sources of information are provided such as ASHP Hospital Formulary and Physician's Desk Reference.
Patients' medications are properly labeled and stored in a locked cabinet at the nurses' station.

Factor 1--The label on each patient's individual medication container clearly indicates the patient's full name, physician's name, prescription number, name and strength of drug, date of issue, expiration date of all time-dated drugs and name, address and telephone number of pharmacy issuing the drug. It is advisable that the manufacturer's name and the lot or control number of the medication also appear on the label.

Factor 2--Medication containers having soiled, damaged, incomplete, illegible or makeshift labels are returned to the issuing pharmacist or pharmacy for relabeling or disposal. Containers having no labels are destroyed in accordance with state and federal laws.

Factor 3--The medications of each patient are kept and stored in their originally received containers and transferring between containers is forbidden.

Factor 4--Separately locked, securely fastened boxes (or drawers) within the medicine cabinet are provided for storage of narcotics, barbiturates, amphetamines and other dangerous drugs.

Factor 5--Cabinets are well lighted and of sufficient size to permit storage without crowding.

Factor 6--Medications requiring refrigeration are kept in a separate, locked box within a refrigerator at or near the nursing station.

Factor 7--Poisons and medications for External Use Only are kept in a locked cabinet and separate from other medications.

Factor 8--Medications no longer in use are disposed of or destroyed in accordance with federal and state laws and regulations.

Factor 9--Medications having an expiration date are removed from usage and properly disposed of after such date.

The extended care facility complies with all federal and state laws relating to the
procurement, storage, dispensing, administration and disposal of narcotics, hypnotics, amphetamines, certain psychosomatic medications and other legend drugs.

Factor I--A narcotic record is maintained which lists on separate sheets for each type and strength of narcotic the following information--date, time administered, name of patient, dose, physician's name, signature of person administering dose and balance.

APPENDIX B
RULES AND REGULATIONS

405.1122 CONDITION OF PARTICIPATION -- PATIENT CARE POLICIES

(a) Standard: policies regarding nursing and medical care.

(1) The extended care facility has written policies which are developed with the advice of (and with provision for review of such policy from time to time by) a group of professional personnel, including at least one or more physicians and one or more registered professional nurses, to govern the skilled nursing care and related medical or other services it provides. Policies reflect awareness of and provision for meeting the total needs of patients. These are reviewed at least annually and cover at least the following:

(i) Admission, transfer, and discharge policies, including categories of patients accepted and not accepted by extended care facility.
(ii) Physician services.
(iii) Nursing services.
(iv) Dietary services.
(v) Restorative services.
(vi) Pharmaceutical services.
(vii) Diagnostic services.
(viii) Care of patients in an emergency, during a communicable disease episode, and when critically ill or mentally disturbed.
(ix) Dental services.
(x) Social services.
(xi) Patient activities.
(xii) Clinical records.

(xiii) Transfer agreement.

(xiv) Utilization review.

(2) The factors explaining the standard are as follows:

(i) It is desirable that the group of professional personnel responsible for patient care policies includes health personnel such as social workers, dieticians, pharmacists, speech pathologists and audiologists, physical and occupational therapists, and mental health personnel. Pharmacy policies and procedures are preferably developed with the advice of a sub-group of physicians and pharmacists, serving as a pharmacy and therapeutics committee.

(ii) Some members of this group are neither owners nor employees of the facility.

(iii) The group meets at regularly scheduled intervals and minutes of each meeting are recorded.

(iv) The group may serve one or more facilities.

Source: Conditions of Participation; Extended Care Facilities (extracted from Federal Register, Volume 32, Number 270, Oct. 28, 1967, Washington D.C.), Title 20 Employees Benefits, Chapter III-Social Security Administration, Dept. H.E.W (Reg. No. 5) Part 405 Federal Insurance for the Aged, Subpart K-Conditions of Participation: Extended Care Facilities,
APPENDIX C
SAMPLE OF QUESTIONNAIRE

GENERAL INFORMATION:

1. The average number of beds utilized in the facility

2. The average number of beds utilized in the facility for Medicare patients

3. The number of R.N.s employed

4. The number of L.P.N.s employed

5. Is a Registered Nurse on duty 24 hours of the day?
   YES NO

6. If Medicare patients are designated a separate area in the facility, please state the number of employees assigned to that area.

7. How many professional people other than R.N.s & L.P.N.s are employed in the facility? (physical therapist, dietician, etc.)

8. Is a Pharmacist Consultant presently associated with the facility?
   YES NO

9. Check the type of pharmacy or dispensing unit utilized in facility:
   __ Licensed in-facility pharmacy
   __ In-facility drug room with medications supplied by pharmacist consultant or local pharmacies.
   __ Hospital connected dispensing unit with individual nursing stations each having floor stock.
   __ Utilization of single unit dose with local consultant pharmacist preparing each unit dose.
   __ Other. (Please specify) ____________________________

DIRECT PRESCRIPTION SERVICE:

1. Does the pharmacist consultant engage in any of the following activities:
A. Aid in the selection of medications for patient upon approval of physician.

B. Aid in the review of patient medication to note therapeutic incompatibilities etc.

C. Aid in or supervise the preparation of drug cards and drug profiles of patients.

D. Review drug cards and drug profiles of patients.

E. Periodically check the drug room at the facility.

F. Instruct nursing staff in safe procedures for handling, storage, use and return of unused drugs.

G. Member of the Pharmacy and Therapeutics Committee of the facility.

2. Please rate the pharmacist consultant in the following areas:

A. General availability of medication
   1 2 3 4 5 6 7
   (POOR) (AVG) (EXCELLENT)

B. Dispensing of medications
   1 2 3 4 5 6 7
   (POOR) (AVG) (EXCELLENT)

C. Delivery of medication to facility
   1 2 3 4 5 6 7
   (POOR) (AVG) (EXCELLENT)

PHARMACEUTICAL GUIDANCE:

1. Do you feel that the prescriptions are properly and adequately labeled as to use, dosage, and routes of administration?
   YES _________  NO _________

Check those items which are included in the prescription labels:

   _________ Name of medication.
   _________ Strength of medication.
   _________ Manufacturers name.
   _________ Manufacturers lot or control numbers.
   _________ Other information. (please specify)
2. Is the pharmacist consultant aware of automatic medication stop orders?
   YES __________  NO __________

   Does he properly interpret these orders?
   YES __________  NO __________

   Check those areas which apply:
   ________ Medications without a specific time limit are discontinued by the nurse in charge after seven (7) days.
   ________ Narcotics are discontinued by the nurse after seventy-two (72) hours.
   ________ No drug is given for longer than ninety (90) days without a written renewal by the physician.
   ________ The physician is notified prior to all discontinuance of medication.

3. Does the pharmacist consultant contact the physician for renewal authorization of medications?
   YES __________  NO __________

4. Does the pharmacist consultant maintain an emergency medication kit?
   YES __________  NO __________

5. How frequently does the pharmacist consultant visit the facility?
   ________

6. Are any conferences held with the nursing staff and the pharmacy consultant regarding drug problems?
   YES __________  NO __________

7. Does the pharmacist consultant advise the administrator, physician or nurse in the facility concerning medication utilization and proper pharmacy services?
   YES __________  NO __________

8. Does the consultant maintain a file of information on drug products in your facility?
   YES __________  NO __________

   Please list the type of sources that are maintained for your use:
   ____________________________________________________________
   ____________________________________________________________
9. How often does the facility have deliveries made by the consultant?

AUXILIARY HEALTH SERVICES:

1. Does the consultant provide an adequate medication billing method which can be readily transferred to patient total extended care facility billing?
   YES ________  NO ________
   If NO, can you suggest a more efficient method?

2. Are you provided with 24 hour on call service by the consultant?
   YES ________  NO ________

3. Does the consultant provide knowledge in the use, fitting and maintenance of orthopedic equipment?
   YES ________  NO ________
   Does the consultant furnish orthopedic equipment?
   YES ________  NO ________
   Is there a need for improvement in this area?

4. Does the consultant provide any of the following:
   Please check those which apply:
   A. ______ Wheelchair utilization and maintenance.
   B. ______ Convalescent equipment such as hospital beds, walker, lifts, etc.
   C. ______ Colostomy and ileostomy appliances, supplies and professional instructions.
   D. ______ Development and maintenance of therapy equipment and the adaptation of such equipment to suit the needs of the therapist and the physician.
CONCLUSION:

1. How would you rate the over-all service provided by the pharmaceutical consultant?

1  2  3  4  5  6  7
(Poor)  (Avg)  (Excellent)

In what specific areas could this service be improved?

2. Do you have any comments about the Medicare program as it relates to pharmaceutical services rendered by the pharmacist consultant?
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<tr>
<th><strong>Name</strong></th>
<th>Keiji Kay Matsumura</th>
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<tr>
<td><strong>Birthplace</strong></td>
<td>Ogden, Utah</td>
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<tr>
<td><strong>Birthdate</strong></td>
<td>29 May 1942</td>
</tr>
<tr>
<td><strong>Elementary School</strong></td>
<td>Grant Elementary School, Ogden, Utah</td>
</tr>
<tr>
<td><strong>College</strong></td>
<td>Weber State College, Ogden, Utah, 1960-1962</td>
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<tr>
<td><strong>University</strong></td>
<td>University of Utah, Salt Lake City, Utah, 1962-1965</td>
</tr>
<tr>
<td><strong>Degree</strong></td>
<td>B.S., University of Utah, Salt Lake City, Utah, 1965</td>
</tr>
<tr>
<td></td>
<td>M.S., University of Utah, Salt Lake City, Utah, 1972</td>
</tr>
<tr>
<td><strong>Registrations</strong></td>
<td>Pharmacist, State of Utah, Salt Lake City, Utah, 1965</td>
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<td></td>
<td>Pharmacist, State of California, San Francisco, California, 1965</td>
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<td><strong>Professional Organizations</strong></td>
<td>American Pharmaceutical Association, Utah Pharmaceutical Association, Utah, Society of Hospital Pharmacist, Weber County Pharmaceutical Association</td>
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<tr>
<td><strong>Professional Positions</strong></td>
<td>Prescription Center Inc., Ogden, Utah, Staff Pharmacist, 1965-1970; McKay-Dee Hospital Center, Ogden, Utah, Staff Pharmacist, 1970-present.</td>
</tr>
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