

QUALITY ASSURANCE ACTIVITIES IN AMBULATORY  
HEALTH CARE CLINICS AS ASSESSED  
THROUGH CLINICAL INDICATORS

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## CHAPTER I

### INTRODUCTION

The Bureau of Community Health Services (BCHS), a section of the United States Department of Health and Human Services (DHHS), formerly the United States Department of Health, Education, and Welfare (DHEW), through its numerous primary care projects attempts to deliver a high quality of health care to medically underserved areas. These projects vary in size, purpose, and capabilities, and is therefore difficult to develop a standard approach to measure quality assurance which is appropriate to all projects.

In accordance with Section V of the DHHS Ambulatory Health Care Standards and Section III of the BCHS Funding Criteria, ambulatory health care clinics are in the process of developing and implementing a quality assurance program to fit its own specific needs yet meet federal guidelines. The expertise of the medical record professional in the area of quality assurance is being called upon by administrators and physicians in ambulatory health care clinics to assist in developing quality assurance programs. Thus, colleges and universities appear to place an emphasis on hospital based quality assurance programs in their teaching medical record administration students on the subject of quality assurance. For the medical record professional to assist

in developing quality assurance programs in ambulatory health care clinics it would appear that more emphasis needs to be placed on this area in their college or university medical record administration program.

#### Statement of Problem

The problem of this study was that medical record administration students need comprehensive instruction in quality assurance so as to more effectively perform quality assurance activities in ambulatory health care clinics.

#### Purpose

The primary purpose of this study was to develop three quality assurance instructional modules so as to educate medical record administration students on the fundamentals of quality assurance in ambulatory health care clinics. Secondly, to test the level of learning obtained through the use of the three quality assurance instructional modules.

#### Hypotheses

The following hypotheses are formulated for this study:

1. There is a significant increase in knowledge of quality assurance terms of those using the instructional modules as measured by the gain score between the posttest and pretest

2. There is a significant increase in knowledge of quality assurance procedures for those using the instructional modules as measured by the gain score between the posttest and pretest

3. There is a significant increase in knowledge of Bureau of Common Reporting Requirements (BCRR) clinical indicators of those using the instructional modules as measured by the gain score between the posttest and pretest

#### Definitions

The following definitions are used for this study:

Gain score: The difference between the posttest and pretest scores.

Quality Assurance: A management control system which sets goals, measures progress toward goals and takes remedial action if the progress is delayed or off-target.<sup>1</sup>

Individualized instructional module: A self-teaching tool designed so the student may learn at his own pace.

Medical care evaluation study: Assessment of the quality of medical care using data from medical records for evaluation and comparison against predetermined criteria.

Ambulatory health care clinic: A health care site which provides medical care on an outpatient basis.

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<sup>1</sup>Norbert Hirschhorn, Quality by Objectives: A Practical Method for Quality of Care Assessment and Assurance for Ambulatory Health Centers (Boston: G.K. Hall, 1978), p. 21.

Terminal performance objective: An objective which specifies behavior students will exhibit after successfully completing an instructional module.<sup>1</sup>

Pretest: A test to measure knowledge prior to the teaching of a selected area of instruction.

Posttest: A test to measure knowledge in a selected area after instruction has been given.

Clinical indicators: Six areas of particular concern to DHHS to which quantifiable goals have been set and each ambulatory health care clinic must measure according to pre-determined criteria.

#### Limitations

The following limitations for this study were:

1. The study only used senior medical record administration students at the Texas Woman's University, therefore, sampling size was limited
2. The reliability and validity of the pretest or posttest was not determined
3. Only content validity was determined for the instructional modules

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<sup>1</sup>Nevin R. Frantz, Jr., Individualized Instructional Systems for Vocational and Technical Education: A Series of Instructional Modules (Athens, Georgia: Vocational Instructional Systems, 1974), p. 9.



### Assumptions

The following assumptions were made for this study:

1. Answers given on the pretest and posttest were to the best of the respondent's knowledge
2. Responses for content validity given by medical record administration program directors on the instructional modules were accurate

### Need for Study

In order to meet federal guidelines, as mandated in Section V of the DHHS Ambulatory Health Care Standards and Section III of the BCHS Funding Criteria, ambulatory health care clinics must develop a quality assurance program. Because of their expertise in the field of quality assurance, the medical record professional is being requested to help develop and implement quality assurance programs in ambulatory health care clinics. It is anticipated with the use of instructional modules on quality assurance in medical record administration programs, the student may have a better understanding and a good working knowledge of quality assurance activities in ambulatory health care clinics.

## CHAPTER II

### SELECTED REVIEW OF LITERATURE

Quality assurance began with Hippocrates when he wrote records of his patients specifically for the purpose of finding causes of inappropriate treatment and correcting them. Individualized instruction was first noted in the 17th century in the Dame Schools where "pupils who came to the Dame were at different stages of development and small in number, and there was no particular need for attempting to mold them into one achievement level."<sup>1</sup> Today, both concepts have developed into very specialized systems.

#### Quality Assurance

The concept of quality assurance has grown through the ages and become more sophisticated and demanding. From the mid 1950s onward, the federal government has become increasingly involved in health care through payment mechanisms such as medicare and medicaid and through grant support for ambulatory health care clinics, hospital construction, and health research.

Hirschhorn with Management Sciences for Health found that

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<sup>1</sup>Robert A. Weisgerber, Perspectives in Individualized Learning (Itasca, Illinois: F.E. Peacock, 1971), p. 120.

a consequence of all this support was the mandate to assess all government-funded care for efficiency and effectiveness. As an experiment, physicians are allowed to control this assessment through professional standard review organizations (PSRO) overseeing hospital care; and by peer review of medical care in ambulatory care projects. By the late 1970s, however, more and more research had shown how tenuous the link between medical process and patient outcome was, especially in ambulatory care.<sup>1</sup>

Quality assurance has become an individual institutional concern with the focus expanding beyond the patient medical record. Due to this concern individual clinics must work toward the development of quality assurance programs.

The Accreditation Association for Ambulatory Health Care, Inc. (AAAHC), was incorporated on March 22, 1979. As a result ambulatory health care clinics now may obtain accreditation through AAAHC, a division of the Joint Commission on Accreditation of Hospitals (JCAH). As in hospitals, quality assurance is an integral part of the accreditation process in ambulatory health care clinics. The AAAHC states that

an accreditable organization maintains an active, organized, peer-based, quality assurance program as an integral part of professional practice to assure the governing body and staff that it does strive to improve the quality of care and promote more effective and efficient utilization of facilities and services.<sup>2</sup>

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<sup>1</sup>Norbert Hirschhorn, Quality by Objectives: A Practical Method for Quality of Care Assessment and Assurance for Ambulatory Health Centers (Boston: G.K. Hall, 1978), p. 3.

<sup>2</sup>Accreditation Association for Ambulatory Health Care, Inc., Accreditation Handbook for Ambulatory Health Care, 1979 (Skokie, Illinois), p. 22.



Of the numerous characteristics required of the organization's quality assurance program one is that "there is evidence that the professional staff understands, supports, and participates in the quality assurance program."<sup>1</sup> Thus, a thorough understanding of quality assurance makes the task of developing a quality assurance program easier.

Ambulatory health care clinics need to develop information systems so as to collect and retrieve clinical data on their patients. This is necessary in order to assure that the health needs of patients are being met. This information system is needed in addition to that ordinarily collected for statistical and billing purposes. Many clinics have methods to obtain financial and utilization data but few have developed methods to collect clinical data in a systematic manner. The Bureau of Community Health Services (BCHS) states

good clinical information systems enable health center personnel to monitor that all available services actually reach their intended recipients. These systems should assist centers in the tracking of pediatric, adult and maternity patients to assure that preventive services and medical care are affectively utilized; that children receive all recommended immunizations and other preventive services; and that patients identified as having hypertension or other medical problems subsequently receive appropriate diagnostic and therapeutic actions. Only through a systematic approach are health centers likely to have significant impact on the

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<sup>1</sup>Ibid.



health of the communities they serve.<sup>1</sup>

Obviously a systematic approach would be the development of an in-house quality assurance program. It must be designed so as to specifically measure those areas directly related to each clinic.

The United States Department of Health and Human Services (DHHS), Bureau of Community Health Services (BCHS) has given the task of individual quality assurance development to each separate project. Currently the approach of the BCHS is to

provide projects with a general framework for developing their own quality assurance systems and to ask projects for specific performance levels and pieces of data which a functioning quality assurance system should be able to provide.<sup>2</sup>

In 1980 the United States Department of Health and Human Services, Bureau of Community Health Services required each project to submit a

brief quality assurance report listing problems (clinical and programmatic) identified in each quarter, audit review findings relevant to each, and an outline of the

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<sup>1</sup>U.S., Department of Health, Education, and Welfare, Public Health Service, Health Services Administration, Bureau of Community Health Services, Clinical Data Collection and Retrieval System for a Small Primary Care Setting, April, 1979, p. 1.

<sup>2</sup>U.S., Department of Health, Education, and Welfare, Public Health Service, Health Services Administration, Bureau of Community Health Services, Primary Care Effectiveness--An Approach to Clinical Quality Assurance in BCHS Programs and Projects, January 1979, p. 1.

corrective action for each.<sup>1</sup>

Each individual clinic's funding is determined annually based upon meeting the requirements as outlined by the DHHS. The standards and indicators are developed to cover comprehensive services in ambulatory health care centers so as to assure quality care and effectiveness in each of their clinical components. It should be noted, therefore, that

some of the standards and indicators are not applicable to all BCHS projects and should be used only as they are appropriate to provide standards for the specific activities which projects are authorized to carry out.<sup>2</sup>

The DHHS has also determined that "a systematic approach to detecting and treating high blood pressure is a necessary component of any primary care program."<sup>3</sup> In order to identify and treat properly patients with high blood pressure, BCHS ambulatory health care projects must develop and implement high blood pressure control measures within their health care plans which include

monitoring of hypertension control using medical review procedures to assure that screening and referral are

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<sup>1</sup>Ibid., p. 36.

<sup>2</sup>U.S., Department of Health, Education, and Welfare, Public Health Service, Health Services Administration, Bureau of Community Health Services, Funding Criteria for Bureau of Community Health Services Programs, January, 1980, p. 8.

<sup>3</sup>U.S., Department of Health, Education, and Welfare, Public Health Service, Health Services Administration, Bureau of Community Health Services, Guidance for High Blood Pressure Control in Primary Care Settings, January, 1980, Foreward.



done appropriately and that therapeutic goals for individual patients are being met.<sup>1</sup>

The BCHS requires that all projects must participate in the Child Health Initiative, Early Periodic Screening, Diagnosis, and Treatment (EPSDT). As part of the Child Health Initiative, BCHS has agreed that "all children will receive continuing care services. All projects will have a case management system. Provision of continuing care will be used as a funding criteria."<sup>2</sup> The BCHS defines continuing care as

the provision to a child of preventive, acute, episodic, and health assessment services by, or arranged for and coordinated by, a primary care provider who maintains a consolidated medical record for that child.<sup>3</sup>

The provision of continuing care will be monitored by collection of clinical data. These data are to assure that 80 percent of all children, regardless of payment status, receive continuing care.

Family planning services are an essential component of preventive health services for adolescents and adults. The BCHS states that

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<sup>1</sup>Ibid.

<sup>2</sup>U.S., Department of Health, Education, and Welfare, Public Health Service, Health Services Administration, Bureau of Community Health Services, Regional Memorandum 80-2, Child Health Initiative, Early Periodic Screening, Diagnosis, and Treatment, January 1980, p. 2.

<sup>3</sup>Ibid.

all bureau projects are required to have an internal quality assessment program which includes periodic program and patient care review. This review of all the centers programs must include a family planning component.<sup>1</sup>

Responsibility for the actual performance of the medical care evaluation studies usually rests with the Medical Records Department. According to the Office of Community Health Centers, a section of the Bureau of Community Health Services

Inservice education may be required to familiarize the records room staff with the audit procedures. The Supervisor of the audit activity, under the direction of the Chief of Medical Records, should be qualified to oversee the functions of sample selection, preparation of audit forms (including interpretation of clinical notes and other record entries for the clinical staff), maintaining audit control sheets and assigning records for audit, interpretation of instructions and training in audit procedures, duplication of<sup>2</sup> audit forms and control sheets and quality control.

Therefore, each clinic must develop a quality assurance program that meets the requirements as outlined by the Department of Health and Human Services. The quality assurance program must follow federal guidelines yet meet the individual clinic's own specific needs.

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<sup>1</sup>U.S., Department of Health, Education, and Welfare, Public Health Service, Health Services Administration, Bureau of Community Health Services, Family Planning in Primary Care Centers, March 1980, p. 24.

<sup>2</sup>U.S., Department of Health, Education, and Welfare, Division of Clinical Services, Office of Community Health Centers, Bureau of Community Health Services, Health Services Administration, Quality Assurance for Community Health Centers, February 1975, p. 3.

### Individualized Instruction

Individualized instruction is receiving increased emphasis in the schools. Comprehensive systems of individualized instruction have been implemented in hundreds of schools across the country. In addition, numerous locally developed programs have emerged to meet the demand for greater attention to the needs of individual learners. Although differences among students in rate of learning have received the major emphasis, attention also has been given to individual differences in interest and learning style. "As programs for individualized learning develop and mature, they can be expected to give increased attention to a broader range of individual differences."<sup>1</sup> When such wide variation in learning ability and achievement is combined with the students differences in motivation, interests, and mode of learning, "it becomes quite apparent that regular classroom instruction cannot be expected to effectively meet the needs of all students."<sup>2</sup>

Attention to individual differences in classroom instruction is not new. Gronlund with the University of Illinois states that

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<sup>1</sup>Norman E. Gronlund, Individualizing Classroom Instruction (New York: Macmillan, 1974), Preface.

<sup>2</sup>Ibid., p. 1.

approximately fifty years ago various plans were devised for adapting instruction to the individual needs of students. Two of the best known of these early plans were the Dalton Plan (Dalton, Massachusetts) and the Winnetka Plan (Winnetka, Illinois). These plans introduced the use of student contracts and individually paced instructional units similar to those in common use today. In fact, the Winnetka Plan is still being used in Winnetka, Illinois.<sup>1</sup>

Although individualized instruction is not new, its wide adoption by schools throughout the country is of relatively recent origin. Some of the reasons for the rapid spread of individualized instruction are:

1. The general dissatisfaction of the public with the quality of public education.
2. The increased emphasis on the need to improve the achievement of culturally disadvantaged students.
3. The increased school enrollments and the knowledge explosion of the 1950s and 1960s.
4. The emergence of a new instructional technology accompanying the development of programmed learning and computer-assisted instruction.
5. The availability of the computer to monitor and manage individual programs of study.
6. The rapid expansion of audiovisual learning materials.
7. The granting of federal funds for learning laboratories, resource centers, and exemplary school programs.
8. The accountability<sup>2</sup> movement, with its emphasis on learning outcomes.

The continuous study of individual differences among students and the means of adapting instruction to these differences, of course, also has been a major influence on the development of individualized instruction. The procedures

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<sup>1</sup>Ibid., p. 3.

<sup>2</sup>Ibid.

for individualizing instruction have been shaped to a large extent by an instructional model that emphasizes behaviorally stated objectives, self-paced learning materials, and a comprehensive evaluation system for monitoring and measuring achievement. Thus, most individualized instruction programs are characterized by the following:

1. A series of units (or modules) of instruction.
2. Instructional objectives stated in measurable terms.
3. Self-paced instructional procedures.
4. A wide range of instructional materials and media.
5. A well-developed testing and evaluation system.
6. An instructional setting that provides easy access to learning resources.
7. Flexible time scheduling.
8. A systematic procedure for managing the program.<sup>1</sup>

Although these features are common to most individualized instruction programs, the amount of emphasis given to each element and the degree of freedom granted to students can be expected to vary considerably from one program to another. Dick and Carey with the University of Florida give the following as the components of an individualized instructional module:

1. Identifying an instructional goal.
2. Conducting an instructional analysis.
3. Identifying entry behaviors and characteristics.
4. Writing performance objectives.
5. Developing criterion-referenced tests.
6. Developing an instructional strategy.
7. Developing and selecting instruction.

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<sup>1</sup>Ibid., p. 4.



# 8. Designing and conducting the formative evaluation.<sup>1</sup>

Frantz with the University of Georgia uses four basic steps when developing individualized instructional modules. They are: (1) Precheck, (2) Objectives, (3) Instructional modules, and (4) Postcheck.<sup>2</sup> Frantz states that his "publication is designed to involve students in a self-instructional process but it is recommended that other types of instructional strategies be used to supplement the modules."<sup>3</sup>

With Frantz's statement in mind one must consider the positive and negative aspects of individualized instruction. Some of the principal proponents for individualized instruction comes from Billings with the Center for Personalized Instruction. They are:

1. The go-at-your-own-pace feature, which permits a student to move through the course at a speed commensurate with his ability and other demands upon his time;
2. The unit-perfection requirement for advance, which lets the student go ahead to new material only after demonstrating mastery of that which preceded;
3. The use of lectures and demonstrations as vehicles of motivation, rather than sources of critical information;

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<sup>1</sup>Walter Dick and Lou Carey, The Systematic Design of Instruction (Glenview, Illinois: Scott, Foresman and Company, 1978), p. 8.

<sup>2</sup>Nevin R. Frantz, Jr., Individualized Instructional Systems for Vocational and Technical Education: A Series of Instructional Modules (Athens, Georgia: Vocational Instructional Systems, 1974), pp. 1-17.

<sup>3</sup>Ibid., Preface.



4. The related stress upon the written word in teacher-student communication; and, finally,
5. The use of proctors, which permits repeated testing, immediate scoring, almost unavoidable tutoring, and a marked enhancement of the personal-social aspect of the educational process.<sup>1</sup>

Some areas of conflict in individualized instruction are given by Nussel, Inglis, and Wiersma. They are:

1. A lack of clarity in role descriptions.
2. A lack of clarity in task description.
3. Differences in philosophy or value perceptions.
4. A lack of open communication.
5. A lack of awareness of the importance of group processes and interpersonal relations.
6. A lack of participation in joint problem solving and decision making.
7. A lack of adequate planning time,
8. Individual personality problems.<sup>2</sup>

Reasoner states individualization includes

the choices and decision-making, the self-determination, the self-seeking, and--inevitably--the self-pacing of the learner by and for himself. The teacher's role is not to individualize, but to provide the learner with opportunities to individualize. The teacher's role is to set the conditions--to arrange time, space, materials, and learners so that they meet in the most productive, advantageous, exciting, and satisfying way for each individual in the classroom.<sup>3</sup>

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<sup>1</sup>Donald B. Billings, Personalized Instruction in Higher Education (Washington, D.C.: Center for Personalized Instruction, 1974), pp. 30-31.

<sup>2</sup>Edward J. Nussel, Joan D. Inglis, and William Wiersma, The Teacher and Individually Guided Education (Reading, Massachusetts: Addison-Wesley Publishing Company, 1976), pp. 179-180.

<sup>3</sup>Charles F. Reasoner, Portfolio of Working Materials for Individualized Instruction (Englewood Cliffs, New Jersey: Prentice-Hall, Inc., 1976), p. 13.

Since their inception, quality assurance and individualized instruction have developed into very specialized systems. These systems may be simple or very complex. Methods and techniques are almost limitless for the designer of these systems and equal opportunity is provided for the learner who chooses to use them.

### CHAPTER III

#### METHODOLOGY

A descriptive study, using a pretest-posttest design, was conducted by the investigator using senior medical record administration students at the Texas Woman's University, Dallas Center, Parkland Campus. Three instructional modules were prepared by the investigator, entitled: (1) Terminology Used in Quality Assurance Activities in Ambulatory Health Care Clinics, (2) Procedures Used in Quality Assurance Activities in Ambulatory Health Care Clinics, and (3) Clinical Indicators Used in Quality Assurance Activities in Ambulatory Health Care Clinics. The instructional modules were written following the Frantz model<sup>1</sup> which includes a pretest, objectives, modules, and a posttest and information from Norbert Hirschhorn in Quality by Objectives: A Practical Method for Quality of Care Assessment and Assurance for Ambulatory Health Centers and the U.S. Department of Health, Education, and Welfare in Handbook for the Conduct of Medical Care Evaluation Studies Using the Explicit Process and Outcome Criteria Approach.

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<sup>1</sup>Nevin R. Frantz, Jr., Individualized Instructional Systems for Vocational and Technical Education: A Series of Instructional Modules (Athens, Georgia: Vocational Instructional Systems, 1974), pp. 1-17.

To determine the content validity of each of these modules the following procedures were followed:

1. The investigator sent a cover letter (see appendix A) with a packet which included an evaluation form (see appendix B) a pretest, three instructional modules, and a posttest (see appendix C) with instructions for completion of the packet to the directors of the four medical record administration programs in the state of Texas. The directors were requested to review the pretest, modules, and posttest and determine their content validity by completing the evaluation form and making any suggestions or changes to the material. They were asked to return the material to the investigator within two weeks of date the packet was received. The investigator included a postage paid, pre-addressed return envelope for the convenience of the program directors.

2. The directors that did not return the packets within the two week allotted time period received a follow-up letter with instructions for completion of the packet with a request to review the pretest, modules, and posttest to determine their content validity (see appendix D). The investigator included a postage paid, pre-addressed return envelope for the convenience of the program directors.

3. When the packets were received, the requested corrections or changes were made to the pretest, modules,

and posttest. Two of the four directors completed the packet and returned them to the investigator as requested. Both directors stated the information appeared to be thorough and complete. There was some uncertainty expressed concerning module 3, Clinical Indicators Used in Quality Assurance Activities in Ambulatory Health Care Clinics, as the directors felt they were not knowledgeable in that area. Both felt it could be useful and requested the results of the study be sent to them. A summary of the evaluation of the individualized instructional modules is in appendix E. With content validity established, the investigator administered the instructional modules to the senior medical record administration students at the Texas Woman's University, Dallas Center, Parkland Campus on Monday, January 25, 1982 at 9:00 a.m. Each student was requested to participate and was allowed three hours to complete the modules. This activity was a part of their class in quality assurance. The students were not asked to sign a permission form nor were they asked to evaluate the modules. No individual scores were revealed and each individual's confidentiality was maintained. The students were requested to complete the pretest, three instructional modules, and the posttest.

After completion of the quality assurance modules the data were tabulated. Data were analyzed and statistically

tested utilizing t-test scores to determine whether there was a statistically significant increase in knowledge of quality assurance terms, quality assurance procedures, and Bureau of Common Reporting Requirements (BCRR) clinical indicators. Assuming that the data pattern was normal a matched-pair experiment was utilized. The .05 level of significance was used.

## CHAPTER IV

### RESULTS

The data collected for this study included pretest, three instructional modules, and posttest scores for senior medical record administration students at the Texas Woman's University, Dallas Center, Parkland Campus. There was a total of fifteen students tested. The data collected are presented in this chapter to show any statistically significant relationships for the three hypotheses.

#### Findings for Hypothesis 1

Hypothesis 1 stated: "There is a significant increase in knowledge of quality assurance terms of those using the instructional modules as measured by the gain score between the posttest and pretest."

For Hypothesis 1, the best possible score which could be obtained was 100% with scores on the pretest ranging from a low of 14.3% to a high of 85.7% and scores on the posttest ranging from a low of 50% to a high of 100%. The mean pretest score for Hypothesis 1 was 52.4 and the mean posttest score for Hypothesis 1 was 86.7 giving a mean gain score of 34.3.

A t-value of 9.48 was attained after statistically

comparing the pretest and posttest which showed the study was significant at the .05 level. This indicates that there was a significant increase in knowledge of quality assurance terms of those using the instructional modules as measured by the gain score between the posttest and pretest. Therefore, Hypothesis 1 was accepted (see table 1).



TABLE 1  
PRETEST, POSTTEST, AND GAIN SCORE FOR KNOWLEDGE  
OF QUALITY ASSURANCE TERMS FOR MEDICAL  
RECORD ADMINISTRATION STUDENTS

Pair Number	Pretest	Posttest	Gain Score
1	71.4	100	28.6
2	42.8	100	57.2
3	14.3	75	60.7
4	71.4	75	3.6
5	71.4	100	28.6
6	42.8	50	7.2
7	85.7	100	14.3
8	57.1	100	42.9
9	42.8	50	7.2
10	14.3	75	60.7
11	42.8	100	57.2
12	28.6	75	46.4
13	57.1	100	42.9
14	85.7	100	14.3
15	57.1	100	42.9

### Findings for Hypothesis 2

Hypothesis 2 stated: "There is a significant increase in knowledge of quality assurance procedures of those using the instructional modules as measured by the gain score between the posttest and pretest."

For Hypothesis 2, the best possible score which could be obtained was 100% with scores on the pretest ranging from a low of 20% to a high of 100% and scores on the posttest ranging from a low of 33.3% to a high of 100%. The mean pretest score for Hypothesis 2 was 84 and the mean posttest score for Hypothesis 2 was 77.8 giving a mean gain score of -6.2.

A t-value of 15.68 was attained after statistically comparing the pretest and posttest which showed the study was not significant at the .05 level. This indicates that there was no significant increase in knowledge of quality assurance procedures of those using the instructional modules as measured by the gain score between the posttest and pretest.

Therefore, Hypothesis 2 was rejected (see table 2).

TABLE 2

PRETEST, POSTTEST, AND GAIN SCORE FOR KNOWLEDGE  
OF QUALITY ASSURANCE PROCEDURES FOR MEDICAL  
RECORD ADMINISTRATION STUDENTS

Pair Number	Pretest	Posttest	Gain Score
1	100	100	0
2	100	66.7	-33.3
3	100	66.7	-33.3
4	100	33.3	-66.7
5	60	100	40
6	20	33.3	13.3
7	100	66.7	-33.3
8	100	100	0
9	60	100	40
10	100	100	0
11	100	100	0
12	100	100	0
13	100	33.3	-66.7
14	60	66.7	6.7
15	60	100	40

### Findings for Hypothesis 3

Hypothesis 3 stated: "There is a significant increase in knowledge of Bureau of Common Reporting Requirements (BCRR) clinical indicators as measured by the gain score between the posttest and pretest."

For Hypothesis 3, the best possible score which could be obtained was 100% with scores on the pretest ranging from a low of 0% to a high of 80% and scores on the posttest ranging from a low of 33.3% to a high of 100%. The mean pretest score for Hypothesis 3 was 53.3 and the mean posttest score for Hypothesis 3 was 71.1 giving a mean gain score of 17.8.

A t-value of 14.15 was attained after statistically comparing the pretest and posttest which showed the study was significant at the .05 level. This indicates that there was a significant increase in knowledge of Bureau of Common Reporting Requirements (BCRR) clinical indicators of those using the instructional modules as measured by the gain score between the posttest and pretest. Therefore, Hypothesis 3 was accepted (see table 3).

TABLE 3

PRETEST, POSTTEST, AND GAIN SCORE FOR KNOWLEDGE  
OF BUREAU OF COMMON REPORTING REQUIREMENTS  
CLINICAL INDICATORS FOR MEDICAL RECORD  
ADMINISTRATION STUDENTS

Pair Number	Pretest	Posttest	Gain Score
1	40	66.7	26.7
2	60	100	40
3	60	66.7	6.7
4	60	66.7	6.7
5	60	100	40
6	60	66.7	6.7
7	0	66.7	66.7
8	60	100	40
9	40	33.3	-6.7
10	40	100	60
11	60	66.7	6.7
12	60	33.3	-26.7
13	60	66.7	6.7
14	80	33.3	-46.7
15	60	100	40

### Summary

In summary, the following were the major findings:

1. There was a significant increase in knowledge of quality assurance terms of those using the instructional modules as measured by the gain score between the posttest and pretest
2. There was no significant increase in knowledge of quality assurance procedures of those using the instructional modules as measured by the gain score between the posttest and pretest
3. There was a significant increase in knowledge of Bureau of Common Reporting Requirements (BCRR) clinical indicators as measured by the gain score between the posttest and pretest

CHAPTER V  
SUMMARY, CONCLUSIONS, DISCUSSION, AND  
RECOMMENDATIONS

The purpose of this chapter is to summarize the study, draw conclusions which appear to be warranted based on the analysis and interpretation of data, and to discuss findings. Recommendations for further research pertaining to the development of instructional modules in quality assurance are based on the findings of this study.

Summary

This study focused on the problem that medical record administration students need comprehensive instruction in quality assurance so as to more effectively perform quality assurance activities in ambulatory health care clinics. With this problem in mind, the investigator conducted a descriptive study, using a pretest-posttest design. Data were gathered from senior medical record administration students at the Texas Woman's University, Dallas Center, Parkland Campus. The survey instrument was constructed to test the following three hypotheses:

1. There is a significant increase in knowledge of quality assurance terms of those using the instructional modules as measured by the gain score between the posttest and

pretest

2. There is a significant increase in knowledge of quality assurance procedures for those using the instructional modules as measured by the gain score between the posttest and pretest

3. There is a significant increase in knowledge of Bureau of Common Reporting Requirements (BCRR) clinical indicators of those using the instructional modules as measured by the gain score between the posttest and pretest

The senior medical record administration students were requested to complete a pretest, three instructional modules, and a posttest within three hours. The data collected were statistically tested utilizing t-scores to determine any statistically significant increase between the stated variables. It was determined that a significant relationship exists for those students in knowledge of quality assurance terms and knowledge of BCRR clinical indicators. It was also determined that no significant relationship exists for those students in knowledge of quality assurance procedures.

### Conclusions

Conclusions for the study derived from the analysis and interpretation of data were as follows:

1. Through the use of individualized instructional



modules on quality assurance, students increased their knowledge of quality assurance terms

2. Through the use of individualized instructional modules on quality assurance, students did not increase their knowledge of quality assurance procedures; the mean score declined

3. Through the use of individualized instructional modules on quality assurance, students increased their knowledge of Bureau of Common Reporting Requirements (BCRR) clinical indicators

### Discussion

Individualized instructional modules may be beneficial to both instructor and student in the teaching/learning process. Individualized instructional modules may be a good introduction to a unit on quality assurance in ambulatory health care clinics but would be more effective if used along with in-class instruction, direction, and practice. The modules could also be used in a discussion group which would review, critique and make suggestions for improvement.

The students may have been confused with the terms used in the modules since they are somewhat different for ambulatory health care clinics than those used in hospitals. It may be helpful if the terms were redefined to correspond with hospital definitions.

Since the students were working within a three hour time frame they may not have read the material as carefully as they should have. They may have had better results if they did not have to work within a time frame.

Since quality assurance has become more sophisticated and demanding, the author thinks individualized instructional modules on quality assurance may help meet these demands. Ambulatory health care clinics must develop quality assurance programs to fit their own specific needs and the author thinks individualized instructional modules can be so designed so as to specifically meet each clinic's needs.

#### Recommendations

1. Rewrite pretest on quality assurance procedures and change the test style from a sequential ranking to a true-false, matching, or multiple choice style and determine reliability and validity by replicating the study on the senior medical record administration students at the Texas Woman's University, Dallas Center, Parkland Campus on instructional module two, Quality Assurance Procedures

2. Evaluate the need to rewrite instructional module two, Quality Assurance Procedures and replicate the study on the senior medical record administration students at the Texas Woman's University, Dallas Center, Parkland Campus

3. Replicate the study using all medical record

administration students in the state of Texas using the new pretest on instructional module two, Quality Assurance Procedures, and using the new instructional module two, so as to have a larger sampling size

4. Request program directors of medical record administration programs from other states to complete the pretest, modules, and posttest to further establish content validity

5. Have students evaluate the instructional modules

6. Repeat the posttest at a later time on the senior medical record administration students at the Texas Woman's University, Dallas Center, Parkland Campus to determine retention

## APPENDIXES

## Appendix A

Ms. Janis Echols  
1204 Wayland St.  
Plainview, Texas 79072

Date

Inside Address

Dear \_\_\_\_\_:

Quality assurance has been a growing concern in recent years in the health care field. In the past the emphasis has been placed on the hospital setting with colleges and universities teaching the medical record administration students quality assurance activities as would be performed in hospitals. Now the concern for quality assurance has turned from the hospital to other types of health settings such as ambulatory health care clinics. Colleges and universities now need to begin training the medical record administration students how to perform quality assurance activities in ambulatory health care clinics.

As part of a research project for my graduate degree at the Texas Woman's University in Denton, Texas the enclosed three individualized instructional modules on quality assurance in ambulatory health care clinics were developed. As the director of a medical record administration program in the State of Texas your opinion on this matter is important. In order to evaluate and improve the modules people with your expertise have been chosen to complete the pretest, modules, and posttest and determine their content validity by completing the evaluation form and making any suggestions or changes to the material.

You may be assured of complete confidentiality. Your name will never be used in the research project.

When I receive your response the suggested changes will be made, then tested on the senior medical record administration students at the Texas Woman's University in Dallas, Texas. In order for your comments or suggestions to be included the material must be returned to me no later than

Name

2

Date

two weeks of the postmarked date. For your convenience I have enclosed a self-addressed, postage paid, return envelope.

The results of this research project will be on file in the Texas Woman's University Library. You may receive the results by writing "copy of results requested" on the back of the return envelope, and printing your name and address below it and a copy will be mailed to you.

I would be most happy to answer any questions you might have. Please write or call. The telephone number is (806) 293-3258.

Thank you for your assistance.

Sincerely,

Janis Echols, R.R.A.

enc. evaluation form, pretest, three instructional modules, posttest, return envelope



Appendix B

INDIVIDUALIZED INSTRUCTIONAL MODULES

EVALUATION FORM

Listed below are five questions concerning the individualized instructional modules on quality assurance in ambulatory health care centers. Please place a check mark (✓) under yes or no in the space provided beside each question.

- |   | <u>YES</u> | <u>NO</u> |
|---|------------|-----------|
| 1. Were the instructions (directions) easily understood?                              | —          | —         |
| 2. Were the objectives met for each module?   | —          | —         |
| 3. Were the tests at the end of each module helpful in understanding the information? | —          | —         |
| 4. Is the pretest an effective method of determining prior knowledge?                 | —          | —         |
| 5. Is the posttest an effective method of determining new knowledge?                  | —          | —         |

Please rate the questions below according to the following scale: 5 - Excellent; 4 - Very Good; 3 - Good; 2 - Fair; and 1 - Poor

- |   | <u>5</u> | <u>4</u> | <u>3</u> | <u>2</u> | <u>1</u> |
|---|----------|----------|----------|----------|----------|
| 6. Did the material cover topics of importance to you?          | —        | —        | —        | —        | —        |
| 7. Did the information hold your interest?                      | —        | —        | —        | —        | —        |
| 8. Was the information presented in terms you could understand? | —        | —        | —        | —        | —        |

## EVALUATION FORM

Page 2

- |  | <u>5</u> | <u>4</u> | <u>3</u> | <u>2</u> | <u>1</u> |
|--|----------|----------|----------|----------|----------|
| 9. In your role as a teacher, can the information be applied in a practical way? | —        | —        | —        | —        | —        |
| 10. Your overall evaluation of the material                                      | —        | —        | —        | —        | —        |
| 11. Any comments or suggested changes?   | _____    |          |          |          |          |

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Appendix C

INDIVIDUALIZED INSTRUCTIONAL MODULE

QUALITY ASSURANCE TERMINOLOGY,  
PROCEDURES, AND CLINICAL  
INDICATORS

The purpose of this instructional package is to teach terms related to quality assurance, teach procedures of the quality assurance system in ambulatory health care clinics, and teach the clinical indicators required by the Department of Health and Human Services to be used in quality assurance in ambulatory health care clinics. When you complete this instructional module, you will have achieved the following terminal performance objective:

AFTER COMPLETING THREE INSTRUCTIONAL PACKAGES, YOU WILL DEMONSTRATE YOUR COMPREHENSION OF THE QUALITY ASSURANCE TERMS, PROCEDURES, AND CLINICAL INDICATORS USED IN THIS INSTRUCTIONAL MODULE BY CORRECTLY ANSWERING 10 MULTIPLE-CHOICE QUESTIONS.

To achieve the terminal performance objective the student must complete three instructional packages. Perhaps you think you already know something about quality assurance. If so, you may wish to take the pretest on page 42 and 43. determine the extent of your knowledge. The result of the pretest can be used to prescribe the instructional package(s) you need to complete this instructional module.

INDIVIDUALIZED INSTRUCTIONAL MODULE  
QUALITY ASSURANCE TERMINOLOGY,  
PROCEDURES, AND CLINICAL  
INDICATORS PRETEST

INTRODUCTORY PACKAGE 1. TERMINOLOGY

DIRECTIONS: Listed below are ten (10) terms and seven (7) definitions associated with quality assurance. Match the term with the correct definition by placing the letter in the space provided.

DEFINITIONS

TERMS

- |   |                     |
|---|---------------------|
| ____ 1. The end toward which effort is directed   | A. Criteria         |
| ____ 2. Patient's status at termination of treatment                                      | B. Outcome criteria |
| ____ 3. Criteria related to activities as they occur that lead toward a particular result | C. Process criteria |
| ____ 4. The quantity expected to meet the criteria  | D. Goals            |
| ____ 5. Measurement of how well standards are being achieved                              | E. Patterns         |
| ____ 6. The failure to meet standards will cause analysis and remedial action             | F. Variation        |
| ____ 7. Revealed through comparison of the patient chart to locally set explicit criteria | G. Deficiency       |
|   | H. Standard         |
|   | I. Assessment       |
|   | J. Assurance        |

GO TO THE NEXT PAGE

INTRODUCTORY PACKAGE 2. PROCEDURES

DIRECTIONS: Listed below is a partial list of activities related to quality assurance. Rank each one sequentially from 1 to 5 in the order they would be performed.

- \_\_\_\_\_ Analyze the data
- \_\_\_\_\_ Write the criteria
- \_\_\_\_\_ Select the topic
- \_\_\_\_\_ Develop recommendations for each deficiency
- \_\_\_\_\_ Document that recommended actions were implemented

INTRODUCTORY PACKAGE 3. CLINICAL INDICATORS

DIRECTIONS: Below is a list of statements related to clinical indicators in quality assurance activities. Indicate whether the statement is true or false by placing a T for true and an F for false in the space provided.

- \_\_\_\_ 1. No less than 80 percent of records on children age 13 and under will show evidence of complete and continuing care.
- \_\_\_\_ 2. No less than 80 percent of charts on hypertensive patients will show adherence by the health center staff to a treatment plan.
- \_\_\_\_ 3. Performance of anemia screening on patients at risk indicates a project's alertness to nutritionally mediated conditions.
- \_\_\_\_ 4. No less than 90 percent of Pap smears reported as class III, IV, and V must have documented follow-up and further diagnostic study within six weeks by a gynecologist.
- \_\_\_\_ 5. Proof of appropriate counseling indicates a project's sensitivity to the unique information needs of its adolescent patients, its effort to prevent unplanned adolescent pregnancies, and its systematic approach to health education.

PROCEED TO THE NEXT PAGE

INDIVIDUALIZED INSTRUCTIONAL MODULE  
QUALITY ASSURANCE TERMINOLOGY,  
PROCEDURES, AND CLINICAL  
INDICATORS PRETEST KEY

DIRECTIONS: Check your answers below for each instructional package. If you did not correctly answer all of the items for an instructional package, you will need to complete this package. If you did correctly answer all items for each instructional package, you may proceed to the posttest on page 64.

INTRODUCTORY PACKAGE 1. TERMINOLOGY

1. D
2. B
3. C
4. H
5. I
6. J
7. E

INTRODUCTORY PACKAGE 2. PROCEDURES

- 3 Analyze the data
- 2 Write the criteria
- 1 Select the topic
- 4 Develop recommendations for each deficiency
- 5 Document that recommended actions were implemented

TURN TO THE NEXT PAGE

INTRODUCTORY PACKAGE 3. CLINICAL INDICATORS

1. FALSE (F)
2. TRUE (T)
3. TRUE (T)
4. FALSE (F)
5. TRUE (T)

PROCEED TO THE APPROPRIATE INSTRUCTIONAL MODULE

## INSTRUCTIONAL MODULE 1

## QUALITY ASSURANCE

## TERMINOLOGY

OBJECTIVE: Understanding the meaning of the terms used in quality assurance is important. This instructional package will help to acquaint you with these terms. When you finish this package you will be able to:

DEMONSTRATE YOUR COMPREHENSION OF THE TERMINOLOGY USED IN QUALITY ASSURANCE IN THIS INSTRUCTIONAL PACKAGE BY CORRECTLY MATCHING 15 TERMS WITH THEIR DEFINITIONS.

ACTIVITY: Complete each of the following activities.

1. Read the definitions of terms on page 48.
2. On page 49 there are 18 terms and 15 definitions associated with quality assurance as defined in this instructional package. Match the correct term with the definition by placing the letter in the space provided.

DEFINITIONS OF TERMS USED WITH  
QUALITY ASSURANCE IN  
HEALTH CARE CLINICS

goals: The end toward which effort is directed.

criteria: Statements describing what local practitioners consider to be the model of excellent and efficient care.

outcome criteria: Patient's status at termination of treatment.

process criteria: Criteria related to activities as they occur that lead toward a particular result.

standard: The quantity expected to meet the criteria.

assessment: Measurement of how well standards are being achieved.

assurance: The failure to meet standards causes analysis and remedial action.

quality assurance: A management control system which sets goals, measures progress toward goals and takes remedial action if the progress is delayed or off-target.

prospective quality assurance: Goals, criteria, and standards specified ahead of assessment.

concurrent quality assurance: Measurements taken throughout the course of operations.

medical care evaluation study: A short study which focuses on a particular problem area in health care.

patterns: Comparison of the patient chart to locally set explicit criteria.

variation: Data abstracted for a medical care evaluation study which do not meet the established criteria or a discrepancy between one criterion and one patient record.



deficiency: A category of unjustified variations which reflect a state of suboptimal medical care.

audit: Synonymous with medical care evaluation study.

Source: Norbert Hirschhorn, Quality by Objectives: A Practical Method for Quality of Care Assessment and Assurance for Ambulatory Health Centers (Boston: G.K. Hall, 1978).

DIRECTIONS: Listed below are 18 terms and 15 definitions associated with quality assurance. Match the term with the correct definition by placing the letter in the space provided.

Definitions

- \_\_\_\_ 1. Comparison of the patient chart to locally set explicit criteria
- \_\_\_\_ 2. Statements describing what local practitioners consider to be the model of excellent and efficient care
- \_\_\_\_ 3. The end toward which effort is directed
- \_\_\_\_ 4. Goals, criteria, and standards specified ahead of assessment
- \_\_\_\_ 5. Synonymous with medical care evaluation study
- \_\_\_\_ 6. Measurements taken throughout the course of operations
- \_\_\_\_ 7. A category of unjustified variations which reflect a state of suboptimal medical care
- \_\_\_\_ 8. The failure to meet standards causes analysis and remedial action
- \_\_\_\_ 9. Data abstracted for a medical care evaluation study which do not meet the established criteria
- \_\_\_\_ 10. Patient's status at termination of treatment
- \_\_\_\_ 11. Criteria related to activities as they occur that lead toward a particular result
- \_\_\_\_ 12. The quantity expected to meet the criteria
- \_\_\_\_ 13. Measurement of how well standards are being achieved
- \_\_\_\_ 14. A management control system which sets goals, measures progress toward goals and takes remedial action if the progress is delayed or off-target
- \_\_\_\_ 15. A short study which focuses on a particular problem area in health care

TERMS ON NEXT PAGE

Terms

51

- A. Standard
- B. Deficiency
- C. Target
- D. Concurrent Quality Assurance
- E. Outcome Criteria
- F. Goals
- G. Assurance
- H. Audit
- I. Prospective Quality Assurance
- J. Dimensions
- K. Variation
- L. Medical Care Evaluation Study
- M. Process Criteria
- N. Operational Plan
- O. Criteria
- P. Assessment
- Q. Quality Assurance
- R. Patterns

CHECK YOUR ANSWERS ON PAGE 52

FEEDBACK

Check your responses with the ones below. If you have correctly matched 15 terms with their definitions, you may proceed to instructional package 2. If you did not correctly match 15 terms with their definitions, review the information in the recheck section.

CHECK

- |      |       |
|------|-------|
| 1. R | 9. K  |
| 2. O | 10. E |
| 3. F | 11. M |
| 4. I | 12. A |
| 5. H | 13. P |
| 6. D | 14. Q |
| 7. B | 15. L |
| 8. G |       |

RECHECK

Locate the term(s) you matched incorrectly with their definitions and clarify your response by reviewing the definitions of terms on page 48 and 49. When you complete this activity, match the term(s) again. When you have attained the objective for this instructional package, you may proceed to package 2 on page 53.

## INSTRUCTIONAL MODULE 2

## QUALITY ASSURANCE

## PROCEDURES

OBJECTIVE: You will need to follow certain procedures as you engage in quality assurance activities in ambulatory health care clinics. This instructional package will familiarize you with these procedures. The objective of this package is:

GIVEN A LIST OF TEN (10) QUALITY ASSURANCE ACTIVITIES, YOU WILL DEMONSTRATE YOUR KNOWLEDGE OF THE PROCEDURES AS DESCRIBED IN THIS INSTRUCTIONAL PACKAGE BY SEQUENTIALLY ORDERING THEM FROM 1 TO 10 WITHOUT ERROR.

ACTIVITY: Complete each of the following activities.

1. Read the Procedures Used in Quality Assurance Activities in Ambulatory Health Care Clinics on page 54.
2. On page 56 you will find a list of quality assurance activities as described in this quality assurance package. Rank each one sequentially from 1 to 10 in the order these quality assurance activities would be performed.

PROCEDURES USED IN QUALITY ASSURANCE  
ACTIVITIES IN AMBULATORY  
HEALTH CARE CLINICS

1. THE TOPIC IS SELECTED.

The purpose of this characteristic is to assure that each medical care evaluation study has the potential to improve the quality of care.

2. THE TOPIC IS REFINED.

Once an area of health care has been targeted and a study topic has been selected, a final determination of what actually is to be studied is made by setting the study objectives.

3. THE CRITERIA IS WRITTEN.

The statements describing what local practitioners consider to be the model of excellent and efficient care.

4. THE STUDY PROPER IS DESIGNED.

The patient population to be audited is determined and the methods of gathering data from a sample of this population is established.

5. THE DATA IS ANALYZED.

When the data have all been abstracted, tallied, and displayed, the results are sent to the audit committee for analysis.

6. RECOMMENDATIONS ARE DEVELOPED FOR EACH DEFICIENCY.

A specific recommendation for each deficiency documented should result from the analysis activities of the audit committee.

CONTINUED ON PAGE 55



7. DOCUMENTATION THAT RECOMMENDED ACTIONS WERE IMPLEMENTED.

This is the first step in feeding back information to the audit committee on the use of the findings of a medical care evaluation study in which the committee verifies that all recommended actions were implemented.

8. A REAUDIT IS PLANNED.

After it is known that recommended actions have been implemented, the audit committee should arrange for evaluating the effectiveness of the recommended actions in removing documented deficiencies.

9. A REAUDIT IS PERFORMED.

The reaudit is the primary feedback mechanism which either documents that deficiencies have been corrected or recommends new plans to correct persisting deficiencies.

10. ALL FINDINGS OF THE MEDICAL CARE EVALUATION STUDY ARE REPORTED TO THE APPROPRIATE AUTHORITIES.

The findings of the medical care evaluation study are reported to the governing authority of the institution of which they have ultimate responsibility for the care provided therein.

DIRECTIONS: Below is a list of activities related to quality assurance. Rank each one sequentially from 1 to 10 in the order they would be performed by placing the number in the space provided.

- \_\_\_\_\_ The data is analyzed
- \_\_\_\_\_ The study proper is designed
- \_\_\_\_\_ Recommendations are developed for each deficiency
- \_\_\_\_\_ The topic is selected
- \_\_\_\_\_ A reaudit is performed
- \_\_\_\_\_ All findings of the medical care evaluation study are reported to the appropriate authorities
- \_\_\_\_\_ The topic is refined
- \_\_\_\_\_ The criteria is written
- \_\_\_\_\_ Documentation that recommended actions were implemented
- \_\_\_\_\_ A reaudit is planned

TURN TO THE FEEDBACK ON PAGE 57

FEEDBACK

Check your responses with the list below. If you answered all items correctly you may proceed to instructional package 3. If you did not answer all items correctly, review the information in the recheck section. When you have reached the objective for this package, you may proceed to instructional package 3.

CHECK

- 5 The data is analyzed
- 4 The study proper is designed
- 6 Recommendations are developed for each deficiency
- 1 The topic is selected
- 9 A reaudit is performed
- 10 All findings of the medical care evaluation study are reported to the appropriate authorities
- 2 The topic is refined
- 3 The criteria is written
- 7 Documentation that recommended actions were implemented
- 8 A reaudit is planned

RECHECK

Locate the step(s) you have out of order and clarify your response by reviewing the procedures on page 54 and 55. When you complete this activity, sequentially order the procedures again. When you have attained the objective for this instructional package, you may proceed to package 3 on page 58.

## INSTRUCTIONAL MODULE 3

## QUALITY ASSURANCE

## CLINICAL INDICATORS

OBJECTIVE: You will need to perform medical care evaluation studies on certain clinical indicators as mandated by the Department of Health and Human Services in ambulatory health care clinics. This instructional package will familiarize you with these clinical indicators. When you finish this package you will be able to:

DEMONSTRATE YOUR COMPREHENSION OF THE QUALITY ASSURANCE CLINICAL INDICATORS USED IN THIS INSTRUCTIONAL PACKAGE BY MARKING SIX (6) STATEMENTS TRUE OR FALSE WITHOUT ERROR.

ACTIVITY: Complete each of the following activities.

1. Read the Clinical Indicators Used in Quality Assurance Activities in Ambulatory Health Care Clinics on page 59.
2. On page 62 there are six (6) statements about clinical indicators used in quality assurance activities in ambulatory health care clinics. Indicate whether the statement is true or false by placing a T for true and an F for false in the space provided.

CLINICAL INDICATORS USED IN QUALITY  
ASSURANCE ACTIVITIES IN  
AMBULATORY HEALTH  
CARE CLINICS

INDICATOR

1. Immunization

No less than 90 percent of records on pediatric patients (age 19 and under) will have documentation of complete immunization.

SIGNIFICANCE

1. Immunization

Successful provision of a series of immunizations to children indicates a project's commitment to preventive health services for children and its implementation of a successful patient tracking system.

INDICATOR

2. Family Planning Counseling for Adolescents

No less than 90 percent of patients 19 and under who are receiving medical family planning services must have a documented counseling session prior to or at the time of receiving any family planning method.

SIGNIFICANCE

2. Proof of appropriate counseling indicates a project's sensitivity to the unique information needs of its adolescent patients, its effort to prevent unplanned adolescent pregnancies, and its systematic approach to health education.

TURN TO THE NEXT PAGE

INDICATOR

## 3. Pap Smear Follow-up

One hundred percent of Pap smears reported as class III, IV, and V must have documented follow-up and further diagnostic study within six weeks by a gynecologist (within the clinic or by referral).

SIGNIFICANCE

## 3. Pap Smear Follow-up

Efficient abnormal Pap smear follow-up indicates effective laboratory data handling practices, appropriate referral patterns, and commitment to prevention of potentially fatal disease.

INDICATOR

## 4. Hypertension

No less than 80 percent of charts on hypertension patients will show adherence by the health center staff to a treatment plan.

SIGNIFICANCE

## 4. Hypertension

Successful hypertension management indicates a project's development of approaches to the management of a common, serious, chronic disease with preventable consequences.

INDICATOR

## 5. Anemia Screening

No less than 90 percent of records on children 24-27 months old will show a hemoglobin or hematocrit measurement and no less than 90 percent of records on female family planning patients will show a hemoglobin or hematocrit measurement.

TURN TO THE NEXT PAGE



SIGNIFICANCE

## 5. Anemia Screening

Performance of anemia screening on patients at risk indicates a project's alertness to nutritionally mediated conditions.

INDICATOR

## 6. Continuing Care for Children

No less than 80 percent of records on children age 19 and under will show evidence of complete and continuing care. This includes but is not limited to history, physical examination, nutritional status, anemia screening, immunizations, vision, hearing, and dental screening.

SIGNIFICANCE

## 6. Continuing Care for Children

Achievement of continuing care for children indicates that a project combines good planning and effective administration to assure that pediatric patients receive the complete and continuous preventive, diagnostic, and evaluative care necessary to achieve a healthy childhood and a productive adulthood.

DIRECTIONS: Below is a list of statements related to clinical indicators used in quality assurance activities in ambulatory health care clinics. Indicate whether the statement is true or false by placing a T for true and an F for false in the space provided.

- \_\_\_ 1. No less than 80 percent of records on children age 13 and under will show evidence of complete and continuing care.
- \_\_\_ 2. Performance of anemia screening on patients at risk indicates a project's alertness to medically mediated conditions.
- \_\_\_ 3. One hundred percent of Pap smears reported as class III, IV, and V must have documented follow-up and further diagnostic study within six weeks by a gynecologist.
- \_\_\_ 4. Proof of appropriate counseling indicates a project's sensitivity to the unique information needs of its adolescent patients, its effort to prevent unplanned adolescent pregnancies, and its systematic approach to health education.
- \_\_\_ 5. No less than 90 percent of charts on hypertensive patients will show adherence by the health center staff to a treatment plan.
- \_\_\_ 6. No less than 90 percent of records on pediatric patients (age 13 and under) will have documentation of complete immunization.

CHECK YOUR ANSWERS ON PAGE 63

FEEDBACK

Check your responses with the list below. If you answered all items correctly you may proceed to the posttest. If you did not answer all items correctly, review the information in the recheck section. When you have reached the objective for this package you may proceed to the posttest.

CHECK

1. FALSE (F)
2. FALSE (F)
3. TRUE (T)
4. TRUE (T)
5. FALSE (F)
6. FALSE (F)

RECHECK

Locate the statements you identified incorrectly and clarify your response by reviewing the clinical indicators on page 59 through 61. When you complete this activity, indicate whether the statements are true or false again. When you have attained the objective for this instructional package, you may proceed to the posttest on page 64.

INDIVIDUALIZED INSTRUCTIONAL MODULE  
QUALITY ASSURANCE TERMINOLOGY,  
PROCEDURES, AND CLINICAL  
INDICATORS POSTTEST

DIRECTIONS: Select the best answer and place the appropriate letter in the space provided.

- \_\_\_\_ 1. The first procedure performed in developing a quality assurance program in an ambulatory health care clinic is to
- A. refine the topic
  - B. select the topic
  - C. design the study
  - D. analyze the data
- \_\_\_\_ 2. Comparison of the patient chart to locally set explicit criteria is the definition of a/an
- A. pattern
  - B. variation
  - C. audit
  - D. deficiency
- \_\_\_\_ 3. No less than 90 percent of records on pediatric patients will have documentation of
- A. family planning counseling
  - B. anemia screening
  - C. complete and continuing care
  - D. complete immunizations

CONTINUE TO THE NEXT PAGE

- \_\_\_\_ 4. Measurement of how well standards are being achieved is the definition of
- A. standards
  - B. assessment
  - C. assurance
  - D. goals
- \_\_\_\_ 5. Once an area of health care has been targeted and a study topic has been selected, a final determination of what actually is to be studied is made by setting the study objectives. This is done by
- A. refining the topic
  - B. writing the criteria
  - C. designing the study
  - D. analyzing the data
- \_\_\_\_ 6. The clinical indicator for continuing care for children includes
- A. family planning counseling
  - B. pap smear follow-up
  - C. immunization status
  - D. family history
- \_\_\_\_ 7. Statements describing what local practitioners consider to be the model of excellent and efficient care are
- A. goals
  - B. criteria
  - C. patterns
  - D. standards

CONTINUE TO THE NEXT PAGE

- \_\_\_\_ 8. The first step in feeding back information to the audit committee on the use of the findings of a medical care evaluation study is
- A. planning a reaudit
  - B. performing a reaudit
  - C. reporting findings to the appropriate authorities
  - D. documenting that recommended actions were implemented
- \_\_\_\_ 9. According to the clinical indicators, a pediatric patient is
- A. 12 and under
  - B. 13 and under
  - C. 19 and under
  - D. 20 and under
- \_\_\_\_ 10. A management control system which sets goals, measures progress toward goals and takes remedial action if the progress is delayed or off-target is the definition of
- A. quality assurance
  - B. concurrent quality assurance
  - C. prospective quality assurance
  - D. medical care evaluation study

PROCEED TO THE POSTTEST KEY ON THE NEXT PAGE



INDIVIDUALIZED INSTRUCTIONAL MODULE  
QUALITY ASSURANCE TERMINOLOGY,  
PROCEDURES, AND CLINICAL  
INDICATORS POSTTEST KEY

DIRECTIONS: Check your responses with the answers below. If you have answered correctly all 10 questions, you have successfully completed this instructional module. Congratulations on your achievement! If you did not answer all 10 questions correctly, review the information for the incorrect responses in the recheck section. When you have reached the terminal performance objective for this instructional module, you may congratulate yourself for your achievement.

CHECK:

- |      |       |
|------|-------|
| 1. B | 6. C  |
| 2. A | 7. B  |
| 3. D | 8. D  |
| 4. B | 9. C  |
| 5. A | 10. A |

IF YOU MISSED ANY OF THE 10 QUESTIONS PROCEED TO THE RECHECK SECTION ON PAGE 68.

IF YOU ANSWERED ALL 10 QUESTIONS CORRECTLY YOU HAVE SUCCESSFULLY COMPLETED THIS INSTRUCTIONAL MODULE.

RECHECK:

68

1. Review number 1 on page 54, Procedures Used in Quality Assurance Activities in Ambulatory Health Care Clinics. It indicates the first procedure would be to select the topic.
2. Review the definition of pattern on page 48, Definitions of Terms Used with Quality Assurance Activities in Health Care Clinics.
3. As indicated under Indicator 1 on page 59, Clinical Indicators Used in Quality Assurance Activities in Ambulatory Health Care Clinics, the correct response is complete immunizations.
4. Measurement of how well standards are being achieved is the definition of assessment according to the definitions of terms on page 48.
5. According to Procedures Used in Quality Assurance Activities in Ambulatory Health Care Clinics on page 54 the answer would be to refine the topic.
6. As indicated by the Clinical Indicators Used in Quality Assurance Activities in Ambulatory Health Care Clinics on page 61, the clinical indicator for continuing care for children includes immunization status.
7. Statements describing what local practitioners consider to be the model of excellent and efficient care are criteria according to the definitions of terms on page 48.

8. As indicated by the Procedures Used in Quality Assurance Activities in Ambulatory Health Care Clinics on page 54 the answer would be documenting that recommended actions were implemented.
9. According to the clinical indicators, a pediatric patient is 19 and under. Review the indicator for continuing care for children on page 61.
10. Review the definition of quality assurance on page 48, Definitions of Terms Used with Quality Assurance Activities in Health Care Clinics.

Appendix D

Ms. Janis Echols  
1204 Wayland St.  
Plainview, Texas 79072

Date

Inside Address

Dear \_\_\_\_\_:

Two weeks ago a letter was sent to you requesting your comments. As stated in my first letter this information is very important for a research project on Quality Assurance Activities in Ambulatory Health Care Clinics since a limited number of people were selected to evaluate the pretest, modules, and posttest.

If you have already completed and returned it please accept my sincere thanks. If not, please do so today so that your comments and suggestions can be included in the final revision. Your response to the evaluation form is needed as soon as possible. If by some chance you did not receive the material, or it got misplaced, please call me collect (806-293-3258) and I will get another one in the mail to you today.

Sincerely,

Janis Echols, R.R.A.

## Appendix E

### INDIVIDUALIZED INSTRUCTIONAL MODULES

#### EVALUATION FORM SUMMARY

Listed below are five questions concerning the individualized instructional modules on quality assurance in ambulatory health care centers. Please place a check mark (✓) under yes or no in the space provided beside each question.

	<u>YES</u>	<u>NO</u>
1. Were the instructions (directions) easily understood?	<u>X</u>	<u>    </u>
2. Were the objectives met for each module?	<u>X</u>	<u>    </u>
3. Were the tests at the end of each module helpful in understanding the information?	<u>X</u>	<u>    </u>
4. Is the pretest an effective method of determining prior knowledge?	<u>X</u>	<u>    </u>
5. Is the posttest an effective method of determining new knowledge?	<u>X</u>	<u>    </u>

Please rate the questions below according to the following scale: 5 - Excellent; 4 - Very Good; 3 - Good; 2 - Fair; and 1 - Poor

	<u>5</u>	<u>4</u>	<u>3</u>	<u>2</u>	<u>1</u>
6. Did the material cover topics of importance to you?	<u>X</u>	<u>    </u>	<u>    </u>	<u>    </u>	<u>    </u>
7. Did the information hold your interest?	<u>X</u>	<u>    </u>	<u>    </u>	<u>    </u>	<u>    </u>
8. Was the information presented in terms you could understand?	<u>4.5</u>	<u>    </u>	<u>    </u>	<u>    </u>	<u>    </u>

## EVALUATION FORM SUMMARY

Page 2

	<u>5</u>	<u>4</u>	<u>3</u>	<u>2</u>	<u>1</u>
9. In your role as a teacher, can the information be applied in a practical way.	<u>X</u>	—	—	—	—
10. Your overall evaluation of the material	<u>X</u>	—	—	—	—
11. Any comments or suggested changes? <u>Material appears</u>					
<u>to be thorough and complete. Would be interested in the</u>					
<u>results of the study. Would consider for future use in</u>					
<u>the classroom. Uncertain about module 3, clinical indica-</u>					
<u>tors since unfamiliar with them.</u>					
<u> </u>					
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<u> </u>					
<u> </u>					
<u> </u>					



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