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Career Ladders for Radiologic Technologists

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CAREER LADDERS FOR RADIOLOGIC TECHNOLOGISTS

Linde Flanders, B.S.

An Abstract Presented to the Faculty of the Graduate School of Lindenwood College in Partial Fulfillment of the Requirements for the Degree of Master of Healthcare Administration

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ABSTRACT

This thesis will focus on the study of career ladders for radiologic technologists and the impact ladders may have upon an employee's advancement and achievement in the workplace. The intent of the project is to develop and implement a career ladder program for radiologic technologists who function solely in the outpatient setting.

Advancement programs are becoming increasingly important to job satisfaction in today's marketplace and management wishes provide a viable working environment in which the technologist will feel challenged and recognized for excellence in clinical practice.

A handbook was created which details the various levels of technologist classifications and areas for advancement. The handbook was evaluated by two disparate evaluators. The evaluations were solicited via a survey tool consisting of 15 questions regarding career ladders. A personal follow-up interview was also conducted with each evaluator. The first evaluator was a radiologic technologist who has worked her way up the rungs of the career ladders at other institutions and the second evaluator was a radiologist who had no prior experience or knowledge of career ladders.

Results of the survey further served to encourage the author to pursue implementation of the program.

CAREER LADDERS FOR RADIOLOGIC TECHNOLOGISTS

Linde Flanders, B.S.

A Culminating Project Presented to the Faculty of the Graduate School of Lindenwood College in Partial Fulfillment of the Requirements for the Degree of Master of Healthcare Administration

COMMITTEE IN CHARGE OF CANDIDACY:

Assistant Professor Betty Lemasters, Ph.D.
Chairperson and Advisor

Adjunct Professor Pat Akers

Gino DiIorio, Ph.D., M.D.

Dedication

This work is dedicated to my husband, friend, and mentor, John. Much love and thanks for all his tolerance and support.

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Chapter I

INTRODUCTION

The Imaging Center is St. Louis' largest free standing outpatient radiology center which offers a full range of imaging modalities, including CT, MRI, ultrasound, nuclear medicine, fluoroscopy, mammography, general radiology studies, EMGs and nerve conduction studies, and cardiology stress testing. Currently, The Imaging Center does not have any formal program which encourages career growth, development, and job satisfaction and thereby retain its highly trained professionals. The intent of this project is to develop and implement a career ladder program for radiologic technologists who function solely in the outpatient setting.

A career ladder is a system of graded levels or steps that can provide an opportunity to advance in one's profession. The progression up the ladder is directly related to an employee's level of achievement. Employees are graded according to their skills and knowledge, with consideration also given to the amount of duties, responsibilities and experience. It is an effective means of providing employees with a sense of upward mobility within their chosen career. Advancement programs designed as career ladders are becoming increasingly important to job satisfaction in today's marketplace. Having the ability to tell prospective employees how they can progress in their careers can be one of the most powerful recruitment and retention tools at the employer's disposal. Management wishes to provide a viable working environment to both challenge professional growth and to encourage and recognize excellence in clinical practice. The ultimate goal is to retain personnel with high levels of competency. Unfortunately, all too often people are viewed as problems rather than as assets.

Thus, little attention may be given to coaching, leading, and developing people as assets and providing professional career paths that reward and enhance professional skills. The variety of specific disciplines which encompasses the imaging sciences presents opportunities for plan development that are virtually limitless. It is equally critical in today's climate to positively and actively support the technologist who chooses general diagnostic work as a career focus, as well as the technologist who aspires to more specialized and skilled career options.

Engineering has utilized career ladders for decades. Unfortunately, all too often healthcare fails to keep pace with industry in the development of effective management tools which meet the needs for new skills and characteristics. The impetus and funding for new programs probably will not come from the government; leaders in the industry must implement changes in education and staff development. Radiology administrators and professional associations must play a role in designing development programs for allied health training as well. Nursing would appear to be the leader in developing and implementing career ladders in the healthcare field. There have been several studies done in nursing to investigate organization commitment and professional development. However, there is a scarcity of research in this area for the allied health professionals and no empirical studies in the radiology sciences (Akroyd 51). Because nursing has experienced a significant amount of success in utilizing career ladders to recruit, reward, and retain competent nurses in clinical practice, it would seem logical that other professionals could benefit from a similar concept without having to "reinvent the wheel."

The utilization of career ladders could encourage growth, development, and job satisfaction. Although turnover among technologists

may be small, the goal should be to retain as many as possible because departures create turmoil and conflict. Shortages due to high employee vacancy rates can cause chronic employee utilization of overtime and costly expenditures for technical agency services. Retention also can play a crucial role in providing quality patient care.

Not only is there a lack of career ladder information available in the healthcare field, but most of the information available relates to the inpatient/hospital setting. The Imaging Center is a freestanding, outpatient radiology facility and even though there are some similarities to the inpatient setting, the differences far outweigh them. A career ladder operating manual should define each modality and the specific expectations of each proficiency level. In order to address this lack of career ladder information or this need, the intent of this project is to develop a career ladder program for radiologic technologists who function solely in the outpatient setting.

Chapter II

LITERATURE REVIEW

I. PREFACE

The Imaging Center is St. Louis' largest free standing outpatient radiology center which offers a full range of imaging modalities, including CT, MRI, ultrasound, nuclear medicine, fluoroscopy, mammography, general radiology studies, EMGs and nerve conduction studies, and cardiology stress testing. Since the center opened its doors in September 1988, its primary mission has been to provide imaging services for patients referred within the North St. Louis County area, with an emphasis on patient convenience and high quality at an affordable price. At the same time, the center strives to provide opportunities for the professional growth and development of the people who provide patient care. Currently, the center does not have any formal program which encourages career growth, development, and job satisfaction and thereby retain its highly trained professionals. The purpose of this study is to provide a structural framework for implementing career ladders in a freestanding, outpatient radiology setting, thereby enhancing the quality of patient care.

The center strives to instill values as an integral part of the health care delivery system. The center management believes in quality--quality in the patient care delivery system and in the people hired, while providing the highest quality service at the lowest possible cost. The center cares about the

people they serve, whether they are patients or visitors. They are treated with courtesy and respect--they are guests. The Center management team also encourages and depends upon the staff to help guide the organization. The commitment to quality patient care is demonstrated by the growth of the facility, the sophistication of the medical imaging technology, and the high caliber of imaging professionals. Through a career ladder program the strength of commitment to professional development, compensation and recognition could be further demonstrated. When faced with the dramatic changes faced by the healthcare industry during the past few years, many organizations have neglected the loyalty and commitment of their employees. Practices are just too busy fighting fires caused by market, competitive, and environmental pressures, in addition to acquisitions, integrations, and affiliations (Patterson 9).

A career ladder is a system of graded levels or steps that can provide an opportunity to advance in one's profession. The progression up the ladder is directly related to an employee's level of achievement. Employees are graded according to their skills and knowledge, with consideration also given to the amount of duties, responsibilities and experience (Crawford 36). It is an effective means of providing employees with a sense of upward mobility within their chosen career while contributing to the strategic positioning of the organization (Thornburg 49). Advancement programs designed as career ladders are becoming increasingly important to job satisfaction in today's workplace. Having the ability to tell prospective employees how they can progress in their careers can be one of the most powerful recruitment tools at the employer's disposal (Nielsen, Advancement Programs 1). In addition, a key challenge for today's radiology administrator is the retention of personnel (AHRA 1). Staff is a company's

biggest asset and if a company has good workers, it needs to hold on to them (Dolan 90). Management wishes to provide a viable working environment to both challenge professional growth and to encourage and recognize excellence in clinical practice. The ultimate goal is to retain personnel with high levels of competency (Davis 17). All too often, we tend to view people as problems rather than as assets. Thus, little attention has been given to coaching, leading, and developing people as assets and providing professional career paths that reward and enhance professional skills (Crane 2). The general lack of development may be a major factor in professional attrition as it relates to job satisfaction. When a technologic student is pursuing formal education, the primary focus is on positioning, anatomy, and radiation safety which are designed to train an individual to enter the field of radiologic technology. In addition, there would appear to be little or no emphasis on the individual's professional growth once they are actually in the field. The education system seems to focus its efforts on entry into the field rather than how one may progress through it. This emphasis may be due, in part, to the time period when many technologists were female and practiced their trade for only a few years before leaving the field to start a family. There was a continual rotation of new people entering the workplace to replace those who had left after only a few years. In today's workplace, the technologist enters the workplace and then works 40 to 45 years until eventual retirement with the expectation of the chance to advance within his/her profession (Nowak 32).

It is critical in today's climate to positively and actively support the technologist who chooses general diagnostic work as a career focus, as well as the technologist who aspires to more specialized and skilled career options. It is a recognized fact that the inherent diversities that exist within the

radiology profession may provide both opportunities and drawbacks that are special and present challenges. The variety of specific disciplines which encompasses the imaging sciences presents opportunities for plan development that are virtually limitless (Nielsen 2).

There is a nationwide shortage of personnel for the radiology sciences with the South and Northeast being the most severely affected. The number of applicants for diagnostic imaging programs has been declining for some time and some of the reasons for the decreasing enrollment may be:

- **Students feel the allied health fields are dead-end jobs with a lack of significant upward mobility**
- **The HIV/AIDS epidemic frightens potential students away from health careers**
- **The technology explosion demands students with an aptitude for mathematics, science and computer technology**
- **The lack of public awareness and appreciation for the value of the service provided**

A domino effect is generated by the decreasing number of graduates and therefore the number of potential certified diagnostic medical imaging personnel. This is further magnified when staffing is considerably reduced in comparison to actual workload. Especially in the smaller facility, just one individual missing from the staffing roster may have a dramatic effect on the quality of patient care. The situation is further compounded by lower staff morale and increased stress. Staff attrition becomes a critical concern and in order to attract new personnel, it becomes necessary to demonstrate that the profession is a worthwhile and lucrative one. Attrition is often attributed to low salaries, low esteem, lack of a career ladder, grumpy physicians, and a poor work environment (Crawford 35). A poor work environment produces employees who are disgruntled, non-caring, and low producers. Many employees expect a nurturing and caring workplace where the environment

allows them to grow and develop. If these needs are not met, the employees will begin to make demands for change or perhaps even terminate their employment. Most people want their chosen career to have meaning and they want to make a difference.

INTRODUCTION

The notion of career advancement has existed in many professions and occupations for hundreds of years. The medieval guild hierarchy identified the basic system of apprentice, journeyman, and master. Today, many industries still have well-established career hierarchies.

It is generally accepted that as individuals proceed through their working years, they "progress." While progression may mean many different things to different people, it can be stated with a reasonable amount of certainty that "progress" in the workplace implies at least the following outcomes:

- **Expanding professional responsibilities**
- **Escalating compensation: wages and/or benefits**
- **Greater status recognition: personal and peer**
- **Enhanced job satisfaction**
- **Tenure**

However, progress is not an employee's given right. It has to be earned through individual motivation, commitment and perseverance on the job (Nielsen 2). If help-wanted classified ads were to reflect what many radiologic technologists think about their jobs, many would read: "dead end," "no room for advancement," "lack of motivation," and "borrrrring." One method for overcoming such perceptions is creating a voluntary career ladder that enables technical staff members to move up while also

encouraging cross-training and continuing education (Stevenson 43). Advancement up the clinical ladder does not put employees into a supervisory capacity, but rather retains them in direct clinical practice where many have expressed a desire to stay. In the past, despite the desire to remain in direct patient care, many individuals left positions to advance and gain pay raises through educational, supervisory, or managerial positions at other healthcare facilities (Davis 17). Radiography, the traditional-style general radiology, was the origin of several disciplines in this clinical area, and is perceived by many technologists as merely a stepping stone to more alluring positions in disciplines such as ultrasound, computed tomography, nuclear medicine, cardiovascular, and magnetic resonance imaging (Nielsen 2). Yet, general radiographic procedures and mammography continue to comprise the majority of our bread and butter diagnostic imaging.

Unfortunately, all too often healthcare lags behind industry in the development of effective management tools. Nursing would appear to be the leader (Nielsen 2). Because nursing has experienced a significant amount of success in utilizing clinical career ladders to recruit, reward, and retain competent nurses in clinical practice, it would seem logical that other professionals could benefit from a similar concept without having to "reinvent the wheel" (Crane 2). Even though turnover among technologists may be small, it is critical to retain all of them because departures create turmoil and conflict. Shortages due to high employee vacancy rates can cause chronic employee utilization of overtime and costly expenditures for technical agency services.

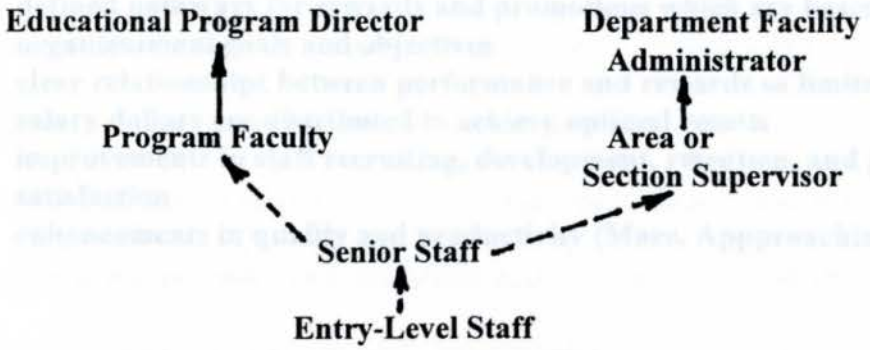
Implementing such a plan is no easy feat. It is dependent upon many and varied factors such as administrative support, human resource availability, practice setting, number of staff, staffing size, and facility size

(Nielsen 2). As an important function of the total compensation package, career ladders must be constructed so that they will motivate employees to add to their existing skills. Progression will require more than seniority or years of experience. In order to move up the career ladder, the radiologic technologist must demonstrate that new skills, education, and expertise have been acquired (Best 28).

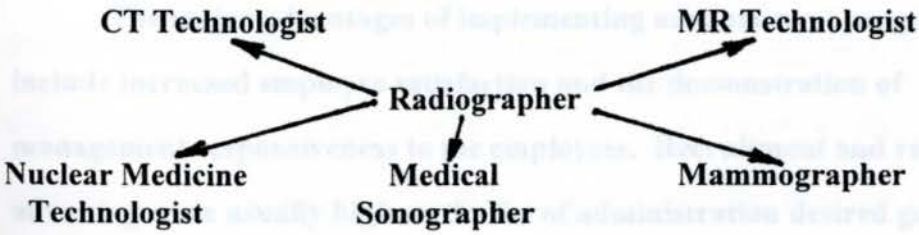
In order to develop a career ladder system, some important aspects must be considered. Management must know what motivates the employees and create systems to meet their needs. Most radiologic technologists are not interested in titles, as such. Their primary focus is to be treated as a colleague on the patient care team ("As We See It" 555). They also tend to focus on contributions and collaboration rather than titles and promotions (Hakim 14). In the past, practically every healthcare professional except the physician has been treated like a "second class citizen." In today's climate, the emphasis on individual employee values and entrepreneurial decision making can represent a major step in the recognition of just how critical the human side of business can be to improved operations and the bottom line. Understanding and exercising a personal value system is fundamental to an employee achieving his/her goals and objectives and experiencing a sense of success (Bosch 27). The program may focus on several objectives: to decrease turnover and unscheduled time off and to improve productivity, customer (patient and referring physician) satisfaction, and employee morale. In this manner, the objectives provide a mutual benefit to management and employees both.

TWO TRACKS--VERTICAL AND HORIZONTAL

Two tracks or pathways may be available for the professional who wishes to progress and be recognized and rewarded for their progression. The first could be defined as a branching vertical pathway (Nielsen 3).



The horizontal model has traditionally radiated from general radiography and is a more realistic path.



Some specific goals of a clinical ladder program could include:

- **enhancing clinical competence by establishing clinical performance criteria**
- **motivating professionals to maintain and increase clinical competence**
- **increasing the options for career development and rewards in clinical areas**
- **serving as part of the orientation process to let new employees, particularly new graduates, know what is expected of them and how they might go about achieving it**

- **supporting staff recruitment, development, retention, productivity, and job satisfaction**
- **encouraging increased quality of care**
- **developing different levels and types of competence and practice as desired by medical staff and administration**
- **supporting the performance evaluation system so that the relationship between competence and salary is well defined**
- **recognizing additional needs for future programs**

Desirable management outcomes might include:

- **defined pathways for rewards and promotions which are based on organizational goals and objectives**
- **clear relationships between performance and rewards so limited salary dollars are distributed to achieve optimal results**
- **improvements in staff recruiting, development, retention, and job satisfaction**
- **enhancements in quality and productivity (Mace, Appproaching 45)**

DEVELOPING ADVANCEMENT PROGRAMS

Major Advantages

The major advantages of implementing advancement programs include increased employee satisfaction and the demonstration of management responsiveness to the employees. Recruitment and retention advantages are usually high on the list of administration desired goals. From an administrator perspective, some of the following may work best:

- **employee buy-in of goals and objectives**
- **more employee involvement**
- **objectivity in recognizing advancement**
- **cross-training in specialty areas**
- **increased staff flexibility**
- **decreased turnover**

From a technologists' perspective, the following concerns might surface:

- **a feeling that the programs are not happening fast enough**
- **concerns about implementing a peer review process to evaluate them for eligibility for promotion**
- **sufficient schools are not available to train technologists for advanced specialty competencies**

Disadvantages

As more levels are incorporated into the program, the more complicated administration of the program becomes. Some skill levels may be difficult to attain due to the limited training available. Due to the ever decreasing corporate training dollar, there may be increased competition for attendance at educational seminars which may, in turn, create territorial boundaries between the various modalities (Nielsen 4). A lack of understanding about the proposed program may also be a detractor from satisfaction. If employees do not clearly understand the ground rules from the very beginning, negative attitudes will most likely develop. In addition, if they do not understand how and when salary increases will be applied within the program, more problems will be manifested. It is critical, therefore, to take sufficient time and involve employees in developing the career pathways and to spend time discussing it thoroughly during the implementation phase. A new program could take two to three years to actually become part of the corporate culture (Thornburg 49). However, as part of the implementation phase, an awareness may develop which will motivate the various personalities, needs, and value systems of the individual employees toward the common goal (Heflich 49).

Satisfaction and Productivity

Although changes in productivity are extremely difficult to measure, it would appear that there would be an improvement in quality of work as well as staff working harder to progress to the next level. Hopefully, there will also be less burnout.

Career Strategy Features

One of the critical features is the need for multiple competency criteria. Multiple competency is the ability to perform procedures in more than one imaging modality (Nielsen 5). This feature is particularly important as most centers are always short-handed. As facilities of all sizes become threatened by the need to reduce staff, flexibility is a fact of life. A minimum number of hours per month must be worked in each specialty. The minimum hours are required to maintain not just status or seniority but primarily to maintain competency.

Monitoring of advancement programs could range from an informal gathering of verbal feedback to formal surveys at six to 12 months after the initiation of the program. In addition, employee committees could be used to evaluate programs on an annual or semi-annual basis (Nielsen 5).

ADVANCEMENT PROGRAM MODELS

Most models stipulate three or four levels of technologists such as

Technologist I, II, III, and IV. Criteria for advancement from one level to another would, of course, require increasing skills and responsibilities. These skills could constitute professional practice, education, leadership, quality improvement, and participation in professional organizations.

Professional Practice Standards

Professional Practice Standards include most of the technical and professional aspects of the work performed by radiologic technologists. As technical skills are delineated into career ladders, each progressive step requires either additional criteria through work responsibilities, or a greater degree of skill, intensity, or independence in the performance of daily tasks.

Professional practice standards could be the standards of performance for the duties of applying specific techniques, protocols and patient care functions. These standards are those functions that are required of registered and licensed technologists to perform imaging services. A list of possible standards follows:

- **familiar with all aspects of each procedure**
- **performs routine exams**
- **performs minor special procedures**
- **performs invasive procedures**
- **applies appropriate radiation safety measures**
- **performs unsupervised procedures independently**
- **practices efficient resource utilization**
- **practices Universal Precautions for Blood Borne Pathogens**
- **attends mandatory educational programs on HIV, HBV, and CPR**
- **attends monthly in-service meetings**
- **attends local professional society meetings**
- **maintains licensure or certification in specific modality (Nielsen 6)**

Education

Educational standards go beyond the scope of basic registration and certification for radiologic technologist (RT). These will include board exams that are not a requirement of the State of Missouri as yet. The number of years in diagnostic imaging and the achievement of multicompetency credentialing will also be a criteria.

Leadership

In order for an imaging facility and its employees to grow and mature, increasing degrees of leadership standards will be required. A win-win situation develops as management shares the responsibility of administrative duties and the technical staff find increased satisfaction through opportunities for growth, advancement and enhanced self-esteem. This, in turn, provides staff people with a greater understanding of how the business actually functions. Leadership skills could encompass the following:

- **leading others**
- **ordering and maintaining supplies**
- **new employee orientation and training**
- **mentoring Belleville Area College interns and new hires**
- **recommending policies and procedures**
- **demonstrating interpersonal skills with patients, referring physicians, medical staff, and peers**
- **collecting and reporting statistics**
- **presenting in-services**
- **participating on committees or task forces**

- **contributing to marketing strategies**
- **coordinating patient flow**
- **coordinating radiation safety meetings with Radiation Safety Officer**
- **serving on the career ladder peer review board**
- **proposing ideas for new customer prospects**

Quality Improvement

Continuous quality improvement is perhaps one of the newest standards which has been incorporated into the growth of responsibility in radiology. Governmental and other regulatory agencies now require increasingly more data collection and monitoring activities.

The center cannot afford personnel whose primary activity is data collection for quality improvement. Thus, these activities have been incorporated into the daily work responsibilities of staff members. Those technologists who willingly volunteer to accept these responsibilities will be recognized and rewarded through planned advancement strategies. The individual's dedication to a process of continuing quality improvement is critical to the facility's credentialing. There must be strict adherence to standards, data collection, monitoring, evaluating and reporting quality information, specific quality improvement activities, trouble-shooting of equipment problems, and development and implementation of measures for continuous quality improvement (Nielsen 7).

Scholarly Activities

Scholarly or academic activities serve to enhance not only the advancement of the growth of the individual radiologic technologist, but also the recognition of the technologist as a professional. In addition, the

radiologic technology professional licensing governing body now requires extensive continuing education each year.

DEFINING LEVELS OF RESPONSIBILITY

A high degree of specificity is necessary in defining progressive activities or responsibilities for the various levels of achievement. Once the career ladder program is developed, the progressive activities should be incorporated into job descriptions and annual appraisals which are used to enforce maintenance of skill or responsibility levels at the achieved level. (Nielsen 8) As the employee proceeds up the ladder, requirements at each level become more complex. Of course, once promoted, the employee is expected to maintain an acceptable level of performance (Davis 8).

A partnership approach could certainly be helpful when adopted by the radiology administrator or medical staff. It will insure that newly hired technologists in the orientation process are guided toward an understanding of the expectations of the workplace. The same partnership attitude requires that the technologist accepts personal responsibility for acquiring the expected skills or responsibility for advancement to higher levels (Nielsen 8).

Participation in the center's program would not be mandatory and management must realize that there may be a few technologists who may decide not to climb the career ladder. They may be interested in cross-training in other modalities but not be interested in attending continuing education programs and pursuing boards for that particular modality. These technologists will continue to receive their annual evaluations and

corresponding pay raises. However, they would not be eligible to move up the career ladder to higher pay grades (Stevenson 46).

USING LEVELS IN PERFORMANCE APPRAISAL

The ongoing management of the career ladder program may be simplified by incorporating it into the annual performance appraisal strategy. The monitoring of an employee's accomplishments in maintaining a level of responsibility may be as important as their responsibility for attaining a higher level. If the responsibility is clearly defined as part of the annual performance appraisal document, both the employee and manager will benefit from clarified expectations.

When incorporated into a criteria-based performance appraisal, the following criteria in the form of a rating scale may be helpful.

Rating 1	Fails to Meet Requirements. Fails to meet any normal expectations and requirements.
Rating 2	Meets Most Requirements. Meets some normal expectations and requirements.
Rating 3	Meets Requirements. Consistently meets all normal expectations and requirements.
Rating 4	Exceptional Performance. Continually exceeds normal expectations and requirements.

COMPARING ADVANCEMENT PROGRAMS WITH TQM PROGRAMS

The 1990s concept of total quality management (TQM) and continuous quality improvement (CQI) call for the transition of responsibility and decision making to the lowest possible level of the work

unit. Career ladders would seem to indicate that participation in the program will result in rewards of authority, responsibility, recognition, title or dollars. Are the concepts competitive or are they compatible? Advancement programs are compatible with TQM and CQI when a great deal of forethought and planning allow the concepts to be incorporated into the program. A good mix of careful planning, thoughtfulness and discussion from many sources should become a part of the development of the advancement program. Each unique modality and mix of competencies and personalities will formulate many differences in development and interpretation which may satisfy one work group and irritate another.

CAREER STRATEGIES MODEL

The model presented here is designed to be generic so that it can be applied to all imaging professionals regardless of their particular modality specialization. The model is also designed to encompass all four levels of technologists: Tech I, II, III, and IV. The following specialties are included:

- **Cardiovascular Technologist**
- **Computerized Tomography Technologist**
- **Magnetic Resonance Technologist**
- **Mammography Technologist**
- **Nuclear Medicine Technologist**
- **General Radiographer**
- **Sonographer**

Vertical Characteristics

A staff member who can document a specific number of professional

characteristics is eligible for promotion to a higher level. These characteristics are identified as vertical characteristics, with each allocated number of points based on relative importance to the department. Point values required for promotion to the next level are:

- **Technologist I 0 - 6 points**
- **Technologist II 7 - 12 points**
- **Technologist III 13 - 18 points**
- **Technologist IV 19 or more points**

Horizontal Characteristics

Within each level, there are three additional lateral moves that the employee can pursue, The employee will be able to advance within a particular level by documenting successful professional practice and pertinent activities. These would then be identified as horizontal characteristics, with each followed by a point value. It is generally understood that point values and attributes may need to be adjusted according to what attributes are most beneficial to the employee and employer. Progress to the next level will be dependent upon the maturity of the technologist and the task assignment (Heriard 47).

Procedure

A notice of intent is filed with the supervisor when an employee believes that the requirements have been met for a vertical or horizontal

move. The employee is responsible for providing the necessary documentation for evaluation. A promotion board, consisting of the Chief Technologist, VP/COO, Senior Radiologist, and peers will meet annually to evaluate all applications for promotion. An additional meeting will be conducted during the year to evaluate the actual career ladder process and all its elements. If an application for promotion is denied, the employee may appeal the decision with the Promotion Board. If the matter is not resolved, the appeal will proceed to the Senior Radiologist. The final appeal will be submitted to the VP/COO. Employees will be compensated for each increase in level. Every third year, the employee must verify that the step criteria are still being met. If the employee's performance no longer meets the minimum point value, the employee will be given a specific time period to remedy the deficiencies. If the employee fails to do so, the employee may be demoted or terminated.

FINANCIAL JUSTIFICATION

Since delivery of healthcare services are labor and capital intensive, wise and continuous investment in human capital is critical.

Economic Benefits

Due to the ever present economic imperative to improve productivity while reducing fixed and variable costs, advancements programs must quantifiably demonstrate economic benefits. The framework is essentially a

cost-benefit argument. Do the overall benefits of implementing an advancement program outweigh the total costs of the program? The economic costs of any advancement program include salary and fringe benefit expenses, promotional increases for individuals who advance, a rise in the overall average compensation levels due to increased seniority and upward progression, short-term productivity losses during training, and the necessity for management to demonstrate their full support of the program through the implementation timetable. The economic benefits of an advancement program include increased employee retention (reduced turnover, fewer vacancies, improved morale), increased employee productivity, improved quality of patient care, and improved competitive position for the clinic (an organization is only as good as its people).

Quantitative Framework

Obviously, there will be some costs which are associated with career ladder programs in the form of increased pay rates to employees who progress upward. However, these costs will be offset by the increased efficiency and productivity of the proficient employees who receive the higher pay rate, as well as decreased expenses in recruiting and training new employees to fill vacancies.

Salary cost estimates would be based on the expectation that the normal merit increases will be awarded when employees advance to each level or that the employee's salary range is higher with each succeeding level.

Since the center practices a goal of hiring better than "average" employees, it is expected that the number of employees advancing would be greater than what would be demonstrated by a normal curve.

Benefit Analysis

Due to recruitment costs, there will be variables in the benefit analysis for the type of technologist required, length of vacancy, costs of advertising, length and intensity of orientation, and the total number of vacancies in any given year (Nielsen 16). As employee performance and productivity improve, financial gains will be realized through a more proficient and efficient use of the center's dollar (Crane 9).

Other Costs

"Hard" costs have traditionally been recruiting efforts such as advertising, luncheons, increased supply costs for protocol mistakes, training, and increased overtime. "Soft" costs are those which require no additional out-of-pocket expenditures but which represent budgeted expenses in salaries used for training rather than productivity. No attempt has been made to place a monetary value on costs such as ill will among referring physicians for lower quality studies. Nor have costs been determined for patient waiting times associated with short staffing resulting from vacancies, or increased turnover among the remaining technologists affected by the vacancies, orientation periods, and learning curve (Nielsen

17).

Return on Investment (ROI)

The classical theories of management developed by Herzberg and McGregor on employee motivation can be used to illustrate some intangible profits. In Herzberg' theory, employee motivation stems from intrinsic factors which help promote job satisfiers such as achievement, recognition, responsibility, and opportunities to advance. According to McGregor's Theory Y, the employee seeks and accepts responsibility and applies creativity to problem solving. A career ladder can be an effective tool for encouraging employees to seek responsibility and explore creative applications (Crane 8).

MULTISKILLED, CREDENTIALED, AND MULTICREDENTIALED

The current trend in healthcare toward the development of multiskilled and multicredentialed professionals can be ascribed to the ever present cost containment measures, competition, job enrichment efforts, and the technology explosion.

Definitions

Multiskilled, Cross-trained, On-The-Job Trained or Multicompetent refers to individuals who may or may not be credentialed in one discipline,

but who have skills in more than one discipline. Credentialed refers to individuals who are awarded certification or licensure through state board exams which validate competence to perform entry-level functions. Multicredentialed refers to individuals who are certified or licensed in more than one discipline or modality.

Background

Historically, radiologic technology consisted only of diagnostic radiology which is now viewed as general radiology. However, with the technology explosion of the past few decades, new procedures and methods have been developed for utilizing magnetic resonance, radionuclides, computed tomography, and ultrasound to aid in the diagnosis and treatment of disease. During the 1960s, on-the-job training became an acceptable method of providing radiographers with advanced skills. In the 1970s and 1980s, radiology skills evolved from the traditional general radiology discipline to areas of science which require highly advanced skills in several separate and clearly distinct disciplines. Today, specialization credentials through state regulated examinations exist for radiography, mammography, nuclear medicine, computed tomography, magnetic resonance, radiation therapy, sonography, cardiac sonography, cardiovascular/interventional, and vascular sonography technology. Many technologists also have additional responsibilities like processor maintenance, supply ordering, quality

assurance, and computer support (Chapman 61).

Along with the manpower issues driven by the technological changes, the center like many other facilities is faced with cost-containment issues. By encouraging cross-training, multicompetency, and multicredentialing, economic considerations are decreased (Nielsen 20). Participation in cross-training has been especially important in helping with staffing emergencies (Stevenson 43). A popular method of cost control is the utilization of one employee in more than one modality if the employee has the proper credentialing. By hiring one employee with multiple skill levels, the organization is able to offer a slightly higher starting salary but saves the cost of hiring two employees. The critical piece of this pie is the consideration that only credentialed and/or multicredentialed diagnostic imaging employees can insure meeting the healthcare needs of the patient (Nielsen 20). The disadvantage that surfaces in this type of situation is finding adequate time for the technologist to cross train and the possibility that some modalities may be more attractive than others.

Benefits and Barriers

The major benefit in employing muticredentialed radiologic technologists is the cost benefit of reducing idle employee downtime since an employee can provide expertise in more than one specialty area. This is particularly true in the large clinic setting versus the much larger hospital setting. The clinic has a lower volume of examinations but a variety of exams in each specialty area. At the same time, the employee also benefits from a sense of increased job satisfaction, salary, job security, marketability, and

flexibility. The potential barriers are resistance to change, inadequate educational facilities and budget, turf battles, and liability issues.

Considerations

To be multicredentialed requires financial, time and energy commitments from the individual radiographer. It also requires a significant commitment after the completion of board exams to remain competent through continuing education.

Professional Organizations

Professional organizations have a golden opportunity to take a leadership role in credentialing issues. The author agrees with Nielsen in that approach of cross-training and not taking state boards, on-the-job training, and mini-courses are not satisfactory alternatives. The total quality concept of multicredentialing should include the goal of higher quality patient care, patient services, and patient communication (Nielsen 21). It becomes a delicate balancing act in which the technologist must remain technologically able while practicing patient care that meets the expectations of a customer-oriented environment (Dowd 44). Afterall, patient care is what it is all about!

CONCLUSION

There is strong evidence that job satisfaction and productivity are

improved when advancement programs are developed. However, advancement programs are not the final answer. They are not likely to solve all our problems. The attention, partnership, and support which evolve through the process can contribute significantly to workplace satisfaction, however. Successful models create two-way benefits for professionals and management as well. Consideration also needs to be given to the future possibilities of evolving job design. The evolution of patient care may also warrant providing professionals with far different education, training, and responsibilities than patient care as we know it today. Perhaps the best approach is to be flexible and keep abreast of one's particular field.

Chapter III

METHODS AND EVALUATION

MATERIALS

The materials in the proposed project include the actual career ladder handbook and the evaluators' questionnaire. Through evaluation of the materials section of the project, an evaluator will be able to assess whether the proposed career ladder handbook is thorough and sound. The evaluator will also be able to indicate whether they feel the prospective program is suitable for implementation at the center.

Introduction

Since the center opened its doors in September 1988, its primary mission has been to provide imaging services with an emphasis on patient convenience and high quality at an affordable price. At the same time, the center strives to provide opportunities for the professional growth and development of the people who provide patient care. The purpose of the study is to provide a structural framework for implementing career ladders in a freestanding, outpatient radiology setting, thereby enhancing the quality of patient care and demonstrating the strength of the center's commitment to professional development, compensation and recognition.

Radiology departments are in the serious business of diagnosing sick

and injured patients where life and death may be a part of the radiologic technologists way of life at work. It is critical that an atmosphere of professionalism prevails (Wilson 56). Radiologic professionals perform work strongly related to one basic social value: the health of the population at large. Since health is viewed as a right by many members of the population, it is difficult to imagine a healthy world without radiology professionals. The radiographer is a practitioner exercising independent judgment in the production of a diagnostic image which integrates art and science while practicing radiation protection (Dowd, Radiologic Technology 66).

A career ladder is a system of graded levels or steps that can provide an opportunity to advance in one's profession. The progression up the ladder is directly related to an employee's level of achievement. Employees are graded according to their skills and knowledge, with consideration also given to the amount of duties, responsibilities, and experience (Crawford 36). The career ladder structure provides a framework within which technologists, whether new graduates or seasoned professionals, can achieve the level of competence and responsibility desired. The program consists of progressively more advanced sets of skills and experiences which may be obtained in the formal classroom setting and/or elsewhere and establishes rewards for achieving the skills. The career ladder structure is capable of facilitating movement upward, downward or laterally, depending upon lifestyle, interests, abilities, and ambition. Technologists may approach the career ladder independently

and move on or off as necessary, setting long and short-range goals, and planning educational requirements. However, career patterns which zigzag, as is commonly seen in the military environment, will be discouraged (Loftus 41). Advancement would also be based on cross-training, certification and the number of vacant positions which are available (Dye 4). A reasonable understanding of the career ladder program, organizational structure, and corporate behavior may also become a factor (Pope 181). In some instances, technologists may simply be finding better ways to use what they already know (Hammer 47).

Objectives

The Bureau of Labor Statistics has projected that the demand for radiologic technologists will increase 66 percent by the year 2000 with radiologic technologists in the top 20 occupations with the fastest growth from 1988 to 2000. Vacancy rates in institutions throughout the United States are projected to be as follows (Okerlund 38):

- **radiography 3-15%**
- **nuclear medicine 3-13%**
- **ultrasound 4-17%**
- **radiation therapy 5-21%**

These shortages can be attributed to cost constraints, less interest in healthcare fields, low esteem on the job, poor work environment, high stress, lack of career ladders, lack of job security, and lower pay scales (Okerlund

Many facilities have experienced the problem of low job satisfaction which may manifest itself in an increased turnover rate due to dissatisfaction with salary and working conditions. Consequently, staffing may be in a constant state of flux with a number of new technologists always in the orientation phase of employment (Gillan 2). In addition to high employee vacancy and turnover rates, the manpower shortage may manifest itself in chronic utilization of overtime and costly expenditures for technical agency services. Other factors which may come to light are increased absenteeism, subtle morale problems, and a deterioration of patient care and service response times (Bova 41). The employee vacancy dilemma may also be further manifested in an actual exodus of talented people (James 28).

One goal of the program is to establish a common knowledge base and level of understanding (Wolf-Schulman 49). To meet these challenges of patient care, all criteria for advancement on the career ladder are directly correlated to education, experience, skills, and competence. The program offers concise, objective, and measurable standards against which the employee can gauge their progress while setting goals for future professional development. Current management leadership trends lean toward encouraging subordinates to actively share in the responsibilities once reserved solely for managers and leaders. As today's workplace environment makes it increasingly more difficult for management to carry the full responsibility for career development along with the myriad other tasks, it

becomes ever more critical that the employee shares the load for the direction of their career. As employee needs and demands change with the times, employees may wish to have more say in the decision-making process which may determine their career and personal future. People are seeking more innovative ways to balance work and lifestyle while also experiencing more personal satisfaction from their jobs (Rees 69).

The program will reflect an aggressive yet realistic and comprehensive approach which is based on proactive long-term prevention rather than a reactive short-term solution (Bova 42). Hopefully, this approach will stimulate a broad-based knowledge base which makes for a deeper talent pool from which to draw (Loftus 41).

Increased Job Satisfaction

The need for self-fulfillment from one's job and work environment has been identified as one of the major components of job satisfaction for today's work force (Gillan 2). Thus, by facilitating a career ladder program, job satisfaction is the anticipated natural outcome. Through skill improvement and additional responsibility, a sense of professionalism, creativity, and being in charge of one's own destiny could emerge. The career ladder presents an opportunity for the technologist to stretch, deepen, and broaden the ability to provide patient care while providing leadership and direction to peers.

Increased Accountability and Responsibility

Movement up the career ladder requires the technologist to demonstrate initiative and to follow through with the necessary steps to achieve career goals at whatever pace is appropriate for the circumstance.

Due to the evolutionary nature of a program of this type, management may find it necessary to make adjustments and revisions to the program in order to anticipate the needs of the participants (Mace, Climbing the Ladder 38). Ongoing monitoring of the program's effectiveness will be critical and management must remain flexible enough to make changes as needed (Dunn 45). Unfortunately, all too often disillusionment and low staff morale appear to be common within organizations which change their structure. Many people may feel threatened by talk of empowerment and innovation and a new form of psychological contract between employee and employer. The old system with its lack of structure may represent a comfort zone which some employees are unwilling to abandon. Emphasis would need to be placed on the need for mutual development of individual and organizational goals which are shared (Holbeche 26).

SUBJECTS

Evaluators

The following people functioned as evaluators of the career ladder

manual:

Evaluator JM, Radiologic Technologist (RT), Certified Nuclear Medicine Technologist (CNMT), Board Certified Mammography Technologist (MT)-- Ms Miller functions as the Chief Technologist at a mid-sized free-standing outpatient imaging center and supervises two CAT Scan technologists, one Ultrasound technologist, one MRI technologist, one Nuclear Medicine technologist, one General Radiography technologist, two Mammography technologists, and one Belleville Area College intern.

Ms M. received her Associates in Applied Sciences from the Carl Sandburg Community College in Galesburg, Illinois and has worked as a Nuclear Medicine technologist for 23 years and as the Chief Technologist at The Imaging Center for the last four years.

Evaluator LR, Ph.D., M.D.-Dr. Reed is the senior partner in a six member radiology group which is located at a hospital in a large metropolitan area. In addition to a medical degree from St. Louis University School of Medicine in 1982, Dr. R. also holds a Ph.D. in Mechanical Engineering from the University of Illinois in 1974. From 1974 to 1984 Dr. R. worked at Battelle Laboratories and owned and managed a private engineering consulting business with the U.S. Nuclear Regulatory Commission and St. Louis University Hospitals as clients. From 1986 to the present he has been in private practice as a hospital-based radiologist. Dr. R. has published over 25 articles in various scientific and medical

journals.

INSTRUMENT

The instrument used to evaluate the handbook will be a questionnaire. The questionnaire consists of 15 questions with ratings (a) strongly agree, (b) somewhat agree, (c) neutral, (d) somewhat disagree, (e) strongly disagree. The questions will help identify where the handbook's strengths and weaknesses may lie. A personal interview will also be conducted to elicit additional comments from the two evaluators. The evaluator's comments should not only help improve the handbook, but should also assist in the decision of whether to implement the career ladder program at all. A one page questionnaire designed by the student to facilitate the evaluation of the handbook can be viewed in Appendix A.

PROCEDURE

The methods of evaluation include a questionnaire completed by two experienced medical professionals. The cover letter to the questionnaire gives instructions on how to complete the questionnaire and the introductory paragraph on the survey questionnaire includes a brief explanation as to why the proposed project was written. The questionnaire will be self-administered by the two evaluators after which a follow-up interview will be conducted.

If a response has not been returned within two weeks, a phone interview will be conducted. If for some reason the pre-selected evaluator cannot participate or decides against participating in the handbook evaluation, another subject with similar credentials will be selected. The substitute evaluator will be treated in the same manner as previous evaluators.

Once the handbook (with evaluator comments) and the questionnaire are returned, both items will be reviewed by the author for clarity and completeness. If questions arise from the author's review, the evaluator(s) will be contacted by telephone to resolve the issue. After a resolution has been obtained, the results will be compiled and summarized. The comments and suggestions about the handbook will be interpreted and discussed in a later chapter.

Chapter IV

HANDBOOK

CAREER LADDERS FOR RADIOLOGIC TECHNOLOGISTS

OVERVIEW OF CAREER LADDER STRUCTURE AND MANUAL

This manual is designed to be your road map to professional development. The career ladder program is designed to promote professional development, recognition, compensation, and job satisfaction. The manual is designed to be a step-by-step explanation of how the career ladder program functions, how you fit into the program, and what you need to do to utilize the program to the fullest extent. The route you desire to pursue is your decision. You may move up, down, or across. You may prefer to continue in your present position, postpone a move onto the career ladder to a later time period, or forge ahead full speed. This purpose of this manual is to demonstrate the center's commitment to your professional development and job satisfaction while offering a clear and concise method for achieving same. In addition, the career ladder program offers the individual to learn more about his/her particular job, improves coverage of all departments, increases staff involvement, and improves communication. The program is strictly voluntary although highly encouraged by management.

The expectations and requirements of the career ladder are designed to realistically represent the levels of learning, skill, and competence which the various governmental regulatory agencies and managed care plans are utilizing as criteria for the technologist in the 1990s. These standards of

excellence should challenge every technologist regardless of position, level of expertise, or modality specialization. The ladder encourages people to build upon what they have learned while maintaining and improving their skills and, perhaps pursue a specialty in depth if so desired.

Some portions of this handbook reflect input from the St. John's Mercy Medical Center Technologist Career Enhancement Program. However, since the intent of this project is to develop and implement a career ladder program for radiologic technologists who function solely in the outpatient setting, a number of revisions, additions, and changes were necessary.

LEVELS AND MOVEMENT ON THE CAREER LADDER

There are five rungs on the career ladder:

- **Technologist I**
- **Technologist II**
- **Technologist III**
- **Technologist IV**
- **Technologist V**

Each level has eligibility requirements as well as performance expectations which must be met. The framework of the career ladder consists of the following factors:

- **Performance qualifications**
- **Professional growth and development**
  - **certification**
  - **continuing education**
  - **participation in a professional organization**
  - **technical expertise**
- **Clinical practice**
  - **use of equipment**
  - **skill**
  - **patient/family education**
  - **healthcare team interaction**
- **Quality assurance**

- **cost containment**
- **quality assurance program participation**

o **Clinical leadership**
- **formal instruction**
- **technical supervision**
- **community service**
- **inservice presentations**

Technologist I through Technologist IV may challenge for promotion whenever the technologist thinks he/she has met the criteria. There will be no limit to the number of technologists who may work at any of the positions. Applicant selection will be based on the technologist who demonstrates the skills and qualifications required for the position. A technologist who is promoted to a higher level will be reviewed in the present level and then promoted.

Fulfillment of achievements in each area earn points and points may be earned in any or all of the areas at the discretion of each technologist. The minimum number of points required for each level follows:

Classification	
Radiographer II	**150**
Mammographer II	**200**
CT Technologist II	**200**
Nuclear Technologist II	**250**
Ultrasonographer	**250**
Radiographer III	**200**
Mammographer III	**250**
CT Technologist III	**250**
Nuclear Technologist III	**300**
Ultrasonographer III	**300**
Radiographer IV	**250**
Mammographer IV	**300**
CT Technologist IV	**300**
Nuclear Technologist IV	**350**
Ultrasonographer IV	**350**
Radiographer V	**300**

Mammographer V	**350**
CT Technologist V	**350**
Nuclear Technologist V	**400**
Ultrasonographer V	**400**

BASIC ELIGIBILITY REQUIREMENTS

Technologist I	**Diploma or degree from an accredited school of radiologic technology plus The American Registry of Radiologic Technologists (ARRT) registry**
Technologist II	**Diploma or degree from an accredited school of radiologic technology plus ARRT registry plus six months to one year radiologic technologist (RT) experience at The Imaging Center** **OR** **Diploma or degree from an accredited school of radiologic technology plus ARRT registry plus two years RT experience in the field** **OR** **Diploma or degree from an accredited school of ultrasonography and/or American Registry of Diagnostic Medical Sonographers (ARDMS) registry, and/or ARRT registry with additional registry in Nuclear Medicine, Computed Tomography, Magnetic Resonance Imaging, or Mammography**
Technologist III	**Diploma or degree from an accredited school of radiologic technology plus ARRT registry plus four year experience at The Imaging Center.** **OR** **Diploma or degree from an accredited school of radiologic technology plus ARRT registry plus eight years experience in the field** **OR** **Diploma or degree from an accredited school of radiologic technology plus ARRT registry plus recognized experience or certification in a specialty plus two year of RT experience (no experience in the chosen specialty required)**
Technologist IV	**Diploma or degree from an accredited school of radiologic technology plus ARRT registry plus**

	eight years experience at The Imaging Center
	OR
	Diploma or degree from an accredited school of radiologic technology plus ARRT registry plus recognized experience or certification in a specialty plus four years experience at The Imaging Center with two years experience in the chosen specialty
	OR
	Diploma or degree from an accredited school of radiologic technology and/or ARDMS, CT, MRI, Nuclear Medicine, Mammography certification plus eight years experience at The Imaging Center
Technologist V	**Diploma or degree from an accredited school of radiologic technology plus ARRT registry plus ten years experience at The Imaging Center**
	OR
	Diploma or degree from an accredited school of radiologic technology plus ARRT registry plus recognized experience or certification in a specialty plus six years experience at The Imaging Center with four years of that experience being in the chosen specialty
	OR
	Diploma or degree from an accredited school of radiologic technology plus ARRT registry plus certification in chosen specialty and eight years experience at The Imaging Center

CAREER LADDER REVIEW BOARD

The Career Ladder Review Board (CLRB) will be a standing committee which will meet quarterly for the purpose of evaluating each portfolio submitted by the technologists who wish to challenge to the next rung. All activities will be confidential. The CLRB will consist of the Chief Technologist, Director of Radiology, and Vice President/Chief Operating Officer.

GENERAL POLICIES AND PROCEDURES

It will be useful to familiarize yourself with the following policies before actually beginning any of the specific tasks of the challenge process.

- **Outside Employment: The center wishes to reward long term employees for their years of loyalty and dedication. For career ladder purposes only, persons with experience gained at the center will be awarded a year of service for each year at the center. However, persons with experience gained in outside institutions will be awarded .5 years of service for each year of outside experience for a maximum of 5 years experience or 10 years outside experience.**
- **Continuing Education: Attendance at seminars and professional meetings will be awarded Continuing Education Units (CEUs). For outside seminars and professional meetings, documentation must be submitted to the Career Ladder Review Board for unit assignment and approval. College courses will be awarded CEUs for each credit hour as long as a grade of "B" is obtained. A minimum of two credit hours is necessary for CEUs to be awarded.**
- **Deadlines: All deadlines for submittal of forms and portfolios must be adhered to.**
- **Challenging Levels: Only one level may be challenged at a time and all levels must be successfully challenged before a technologist can move to a higher level. If the first attempt to challenge a level is unsuccessful, the technologist may re-challenge in three months. If the plan is changed after submitting the paperwork for "Intent to Challenge", the applicant must submit a written notice of withdrawal to the CLRB.**
- **The CLRB reserves the right to review individual situations that may deviate from the established norm and may make exceptions as they deem appropriate; however, requests for such exceptions are expected to be infrequent.**
- **All new technologists will typically enter at Level I. Newly hired technologists who have previous experience are required to remain at entry level for a minimum of six months before challenging to Level II.**
- **Level I and Level II technologists must maintain their current level for a minimum of one year before challenging the next level.**
- **With the exception of education and experience, all activities must have been completed within the 12 month period prior to the challenge date.**
- **Incomplete portfolio submissions will not be accepted.**
- **Documentation included in the portfolio must not violate patients' confidentiality. Names and other patient identifying information must be removed or deleted.**

PREPARATION OF THE PORTFOLIO

The portfolio represents education, competence, and experience and its compilation is a major task in the challenge process. Based on the portfolio, the CLRB will make a decision whether to accept or deny the challenge. For this reason, the portfolio should be presented in a format that is neat, legible, well-organized, and professional in appearance. The portfolio must contain the following items:

- **Table of Contents**
- **Application**
- **Curriculum vitae detailing experience**
- **Copy of the performance expectation of the level being challenged**
- **Copy of technologist's license, certification, degree, or diploma**
- **Transcripts of formal education**
- **Documentation of educational hours/certifications with list of topics and dates of classes**
- **Copy of CPR card**
- **Copy of professional organization membership card**
- **Summary of any special projects completed**
- **Technologist's signature**
- **Supervisor's signature**
- **Copy of any publications**
- **Community service program documentation**
- **All quality improvement activity documentation**

As soon as the technologist decides to challenge the next rung on the ladder, the technologist should begin compiling the various documentation and records needed. The portfolio is due 30 days from the time the CLRB receives the "Notification of Intent to Challenge" form from the technologist. The schedule for portfolio submission follows:

Intent to Challenge Notification Submitted	Portfolio Deadline
1 February	1 March
1 May	1 June
1 August	1 September

1 November **1 December**

If the first day of the month falls on a weekend or holiday, the portfolio will be due on the next business day.

THE CHALLENGE PROCESS

Once a technologist makes the decision to challenge the next rung on the ladder, the following steps will need to be pursued:

- **Carefully review and examine the performance expectations of the level**
- **Submit a "Notification of Intent to Challenge" form to the CLRB 30 days in advance of when you wish to submit your portfolio (see schedule above)**
- **Assemble all necessary documentation for the portfolio**
- **Submit portfolio to CLRB for review**
- **CLRB will review portfolio and complete an evaluation form**
- **CLRB will notify technologist of challenge results within 30 days**
- **CLRB will notify technologist's supervisor of challenge results**
- **If challenge is unsuccessful, the technologist may re-challenge in 90 days**

MAINTENANCE OF CURRENT LEVEL

Regardless of which rung of the career ladder the technologist may currently be on, it will remain equally important that the technologist maintains current skills and performance level. The following are requirements for maintaining the current level:

- **100% of CEUs must be maintained for all Technologist Levels. These requirements will be reviewed during the annual Performance Appraisal interview.**
- **The annual Performance Appraisal evaluation will be based on the performance expectations of the current level.**
- **Prior to the annual Performance Appraisal interview, a self-evaluation and documentation of any CEUs acquired during the year should be**

submitted.

- **If the technologist's performance level becomes unsatisfactory at any time during the course of the year, the supervisor will discuss the matter with the technologist. The technologist will have 30 days to present the portfolio for the supervisor's review and to improve the performance issue. If the performance issue is not resolved within 30 days and the technologist's performance is still deemed unsatisfactory for the current level, the technologist will be moved to the appropriate level which reflects current performance. If the technologist differs in opinion regarding the appropriate level, the portfolio may be submitted to the CLRB for review and a final decision.**

CRITERIA

Professional Growth and Development

- **Years of technologist experience**
  Two points per year
- **Years of related healthcare experience**
  Two points per year (Maximum points six)
- **Baccalaureate degree in related area of study**
  25 points
- **Master's degree in related area of study**
  50 points
- **National specialty certification**
  10 points each
- **Continuing education**
  College credit hour
  Five points per one college credit hour
  Documentation of complete course work and a grade of "B" is required
- **Participates in professional healthcare organization**
  Five points
  Proof of current membership required
- **Member of technologist or other related healthcare organization**
  Proof of current membership required
- **Board position and/or standing committee position with professional organization**
  15 points
  Requires written documentation indicating attendance at 80% of the meetings

Clinical Practice

- **Contributed to program development and/or special projects. Projects will be weighted as major or minor pending complexity and**

involvement
Example of major project: developed patient brochure
Example of minor project: revision of current handout
50 points for major project
25 points for minor project

- **Publication and/or videotape production**
  Submission of written material to professional publication and/or publication to the community
  50 points per article
  Writes, edits and prepares videotape
  50 points
- **Performs as a preceptor within specialty area**
  Exhibits knowledge, skill and expertise and develops those skills in others
  Validates skill levels of assigned personnel
  Documentation and supervisor validation required
  Ten points per training session
- **Demonstrates proficiency by performing tasks independently, without direct supervision or assistance**
  Patient care and screening
  Patient positioning/imaging
  Instrumentation quality control
  Radiation safety
  Computer applications
  Darkroom techniques
  10 points per category

Leadership

- **Coordinates and/or present formal inservices**
  Must provide current practice information
  Each inservice must be a minimum of one contact hour (45-50 minutes)
  Coordinates inservice 35 points
  Coordinates and presents inservice 50 points
  Presentation to professional modality or other healthcare organizations
  50 points per contact hour
- **Provides instruction/teaching at local college or university**
  Letter from institution required
  15 points per each contact hour of instruction
- **Provides technical supervision for Belleville Area College, Meramec Community College, or Sanford Brown students**
  Supervises students in clinical area and completed student competency documentation and receives validation from school official
  10 points per each eight hour shift supervision
- **Provides technical supervision for new employees**
  Assigned to orient new employee

Validates competency and provides feedback to supervisor
10 points per each eight hour shift supervision

- **Plans/participates in community education programs as a volunteer**
  Five points each activity for eight hour shift

Quality Improvement

- **Participates in on-going quality improvement and/or quality control program**
  Collects and tabulates data, evaluates compliance
  50 points for major assignment
  25 points for minor assignment
- **Research participation**
  Coordinates or participates in research project with documentation of objective and methodology included
  Research project must be pertinent and beneficial to professional area
  30 points for coordinating project
  15 points for data collection
  50 points for publishing research findings if listed as primary or secondary author
- **Product or equipment evaluation**
  Coordinates the evaluation of new products, equipment, or service
  Independently gathers feedback from staff and physicians and reports findings
  10 points per occurrence
- **Implementation of new product, equipment, or service**
  Develops action plan for implementation including acceptance testing, staff education, projected time frame and follow up
  10 points for implementation plan

CONCLUSION

This program has been designed to help enrich and enhance the employee's work life and style by encouraging career growth, development, and job satisfaction and thereby retain its highly trained professionals. Since there is a lack of career ladder information available relating to the freestanding, outpatient radiology environment, the intent of this project is to develop and implement a career ladder program for radiologic technologists who function solely in the outpatient setting. Management wishes to provide

a viable working environment to both challenge professional growth and to encourage and recognize excellence in clinical practice.

However, changing from a traditional career structure in which promotion and salary are largely based on longevity and education to a competency based system does not just happen. Designing, implementing, maintaining, and revising a clinical career ladder program like this takes ongoing time, effort, and money in order to achieve objectives which are desirable to both management and staff. Hopefully, this program will accomplish individual and organizational objectives while encouraging optimal patient care.

CHAPTER V

RESULTS

Description of the Project: Career Ladders for Radiologic Technologists

This project involved developing a handbook to be used as a resource along with other existing professional development materials available to the healthcare human resource person when counseling healthcare professionals regarding career development. This handbook (a) introduces a general overview of career ladder structure, (b) levels and movement on the career ladder, (c) basic eligibility requirements, (d) the career ladder review board, (e) general policies and procedures, (f) preparation of the portfolio, (g) the challenge process, (h) maintenance of current level, and (i) criteria.

The first section provides a brief overview of how the manual might function as a road map to career development for radiologic technologists. It discusses the goals and expectations of the program and encourages the technologists to build upon what they have learned while maintaining and improving their skills. The overview is designed to instill the belief that a professional development program like a career ladder must be systematic in order to ensure quality and consistency while still remaining flexible to meet the needs of the individual technologist.

The second section of the manual details the five levels of the career ladder and provides the framework for achieving performance requirements: (a) performance qualifications, (b) professional growth and development, (c) clinical practice, (d) quality assurance, and (e) clinical leadership. The minimum number of points required for each level is also provided.

(b) annual Performance Appraisal evaluation based on the performance expectations of the current level, (c) self-evaluation and documentation of any CEUs acquired, and (d) the resolution of unsatisfactory performance issues.

The Criteria section details numerical values for Professional Growth and Development, Clinical Practice, Leadership, and Quality Improvement.

The criteria included in Professional Growth and Development are (a) years of experience, (b) years of related healthcare experience, (c) baccalaureate degree, (c) Master's degree, (d) national specialty certification, (e) continuing education, (f) professional organization membership, (g) technologist organization membership, and (h) board position and/or standing committee position with professional organization.

The criteria included in Clinical Practice are (a) contribution to program development and/or special projects, (b) publication and/or videotape production, (c) performance as a preceptor within specialty area, and (d) demonstration of proficiency by performing tasks independently without direct supervision or assistance.

The criteria included in Leadership are (a) coordinates and/or presents formal inservices, (b) provides instruction/teaching at local college or university, (c) provides technical supervision for Belleville Area College, Meramec Community College, or Sanford Brown students, (d) provides technical supervision for new employees, and (e) plans/participates in community education programs as a volunteer.

The criteria included in Quality Improvement are (a) participation in on-going quality improvement and/or quality control program, (b) participation in research project with documentation of objective and methodology included, (c) product or equipment evaluation, and (d) implementation of new product, equipment, or service.

Evaluation

Evaluation of the handbook for Career Ladders for Radiologic Technologists was conducted. Two handbook evaluators were chosen based on their experience and education. The evaluators were asked to review the career ladder program handbook and answer the accompanying questionnaire. Additionally, in a personal interview each evaluator was asked to add any comments about the handbook that may help strengthen its chance for successful implementation.

The first evaluator, Ms M., is currently employed by a mid-sized, free-standing outpatient radiology center as the Chief Technologist. Ms M. holds the following board certifications (a) Radiologic Technologist (RT), (b) Certified Nuclear Medicine Technologist (CNMT), and (c) Mammography Technologist (MT). Ms M. supervises two CAT Scan technologists, one Ultrasound technologist, one MRI technologist, one Nuclear Medicine technologist, one General Radiography technologist, two Mammography technologists, and one Belleville Area College intern. She received her Associates in Applied Sciences from the Carl Sandburg Community College in Galesburg, Illinois and has worked as a Nuclear Medicine technologist for 23 years and as the Chief Technologist at a metropolitan imaging center for the last four years.

The second evaluator, LR, Ph.D., M.D., is the senior partner in a six member radiology group in a large metropolitan area. In addition to a medical degree from St. Louis University School of Medicine in 1982, Dr. R. also holds a Ph.D. in Mechanical Engineering from the University of Illinois. From 1974 to 1984, Dr. R. worked at Battelle Laboratories and owned and managed a private engineering consulting business with the U.S. Nuclear Regulatory Commission

and St. Louis University Hospitals as clients. From 1986 to the present, he has been in private practice as a hospital-based radiologist. Dr. R. has published over 25 articles in various scientific and medical journals.

Overall, both evaluators commented that the handbook appeared well organized and the data seemed to have been researched and presented in a logical sequence. Ms M. commented that she felt the implementation of career ladders for radiologic technologists could provide incentive for growth opportunities as technologists tend "to get into a rut." She felt career ladders could provide technologists with something to look forward to and to work toward achieving. She also commented that she agreed with the approach which allows personnel who wish to remain the same to do so. She also pointed out that in the hospital situation, the Nuclear Medicine Department functions independently of the Radiology Department. She also voiced the opinion that individuals who pursue a four-year B.S. degree program in a specific modality may actually be at a disadvantage as they have not had the opportunity to expand their breadth of experience in any other modalities.

Dr. R. stated that he felt the Classification section should be revised to better reflect the additional educational and experience requirements necessary for Ultrasonography and Nuclear Medicine. He felt a Nuclear Technologist II should require a minimum number of 300 points, Nuclear Technologist III a minimum number of 350 points, Nuclear Technologist IV a minimum number of 400 points, and Nuclear Technologist V a minimum number of 450 points. He commented that an Ultrasonographer typically requires half the educational requirements necessary for Nuclear Medicine and thus, he felt, all Nuclear Medicine classifications should require a greater number of points. Dr. R. also stated that he felt the Nuclear Technologist classification warranted additional differentiation due to the copious amount of Nuclear Regulatory Commission

documentation which the Nuclear Medicine Technologist is required to compile and maintain. In addition, the Nuclear Medicine Technologist must facilitate the Nuclear Regulatory Commission inspection and bears full responsibility for the facility passing the inspection. He did state, however, that when comparing a CAT Scan Technologist to an Ultrasound Technologist, he felt the classification which weighted the Ultrasound position with a greater number of points was correct. His rationale was that a CAT Scan Technologist is not required to exercise the same level of judgment as a sonographer, and that the radiologist relies much more heavily on the interpretation provided by a sonographer in order to diagnose the patient.

Dr. R. also commented on the Continuing Education category in the General Policies and Procedures section. He felt that when the members of the Career Ladder Review Board (CLRB) assign a numerical value to seminars and professional meetings for the purpose of awarding continuing educational units, the CLRB should keep in mind that college/university credit hours typically entail a substantially greater expenditure of time, finances, and dedication than seminars and professional meetings. For this reason, he felt CEUs for seminars and professional meetings should carry a much lesser value than college credit courses.

Dr. R. further commented that he felt a handbook of this type could provide a greater awareness of the tasks individuals actually perform while instilling an ongoing need for self-improvement and achievement. In particular, he agreed with the general philosophy of career ladders as a reflection of the attitude that the technologist is pursuing a career rather than just doing a job. Dr. R. further questioned the author as to whether the career ladder program functions in conjunction with salary increases.

Both evaluators were very supportive of the handbook and expressed enthusiasm for its implementation in the near future.

CHAPTER VI

DISCUSSION

SUMMARY

The purpose of this culminating project was to develop a career ladder program handbook which could be utilized by radiologic technologists in the freestanding, outpatient radiology setting. Since virtually no information exists on this subject, the handbook was developed to complement the limited resources which address the freestanding, outpatient setting versus the inpatient, hospital setting.

The handbook presents both an overview and systematic framework of how a career ladder program could function and is intended to help familiarize the radiologic technologist with the program. Since the program is in its early stages of development, the author realizes that designing, implementing, maintaining, and revising a clinical career ladder program like this takes ongoing time, effort and money in order to achieve its objectives.

Ultimately, the program has been designed to enrich and enhance the employee's personal and professional development while accomplishing organizational objectives as well. Understanding the tasks, goals and objectives related to each stage of professional development will enable the technologist to determine where he or she may be deficient and thus focus on specific areas for improvement and enrichment. Overall, the handbook

should assist the technologist and administration in becoming more effective in planning flexible career strategies which are appropriate for all modalities. It is equally critical in today's climate to positively and actively support the technologist who chooses general diagnostic work as a career focus, as well as the technologist who aspires to more specialized and skilled career options. Participation in the program would not be mandatory and management must realize that there may be a few technologists who may decide not to climb the rungs of the career ladder.

EVALUATORS' COMMENTS AND SUGGESTIONS

As noted in the prior chapter, both evaluators were very supportive of and enthusiastic about the handbook and the implementation of the program.

The evaluators expressed the following attitudes/biases/opinions via the survey tool:

Question 1: I have a good working knowledge of how career ladders function.
Evaluator 1=strongly agree
Evaluator 2=neutral

Question 2: I have been involved in career ladder programs at previous employers.
Evaluator 1=somewhat agree
Evaluator 2=strongly disagree

Question 3: Career ladders encourage growth, development and job satisfaction.
Evaluator 1=somewhat agree
Evaluator 2=somewhat agree

Question 4: A career ladder program would be helpful in goal setting.
Evaluator 1=strongly agree
Evaluator 2=somewhat agree

Question 5: The career ladder provides a structure within which it is possible to achieve the level of competence and responsibility desired.
Evaluator 1=strongly agree
Evaluator 2=somewhat agree

Question 6: The career ladder provides the structure in which an employee can move upward, downward, or laterally, depending upon lifestyle, interests, abilities, and ambition.
Evaluator 1=somewhat agree
Evaluator 2=somewhat agree

Question 7: All criteria for advancement on the career ladder should be related to the education, experience, skills and competence required in today's environment.
Evaluator 1=strongly agree
Evaluator 2=somewhat agree

Question 8: There could be five positions--Tech I through Tech V.
Evaluator 1=strongly agree
Evaluator 2=somewhat agree

Question 9: Each level of the ladder should have eligibility requirements.
Evaluator 1=strongly agree
Evaluator 2=somewhat agree

Question 10: There is no limit to the number of technologists who may work at these positions.
Evaluator 1=strongly agree
Evaluator 2=somewhat agree

Question 11: One of the major factors should be certification.
Evaluator 1=strongly agree
Evaluator 2=somewhat agree

Question 12: The portfolio should be professional in appearance, well-organized, neat and legible.
Evaluator 1=strongly agree
Evaluator 2=somewhat agree

Question 13: Continuing education should be one of the major factors.
Evaluator 1=strongly agree
Evaluator 2=somewhat agree

Question 14: The program should present a step-by-step explanation of how the program works and how the employee fits into it.
Evaluator 1=strongly agree
Evaluator 2=strongly agree

Question 15: Movement on the ladder should be up to the employee.
Evaluator 1=strongly agree
Evaluator 2=strongly agree

Although both evaluators are well seasoned radiology professionals, they do represent two varied perceptions when evaluating career ladders. During the personal interview, it became apparent that Evaluator One has worked her way up through the ranks and thus has in previous employment actually held positions which utilized the career ladder classification system. Evaluator Two is a hospital-based staff radiologist who has had little exposure to a career ladder framework and has had little or no input into the overall hiring, training, and career development of the technologists who function in the radiology department. Thus, Evaluator One may possess a more indepth, working knowledge of such a framework and its potential while Evaluator Two would have only limited experience.

During the personal interview with Evaluator One, it became apparent that she is, of course, biased against a four-year degree program versus a two-year degree program, as her own experience lies with a two-year degree program. Evaluator Two, on the other hand, holds a Ph.D. in addition to his M.D. and feels passionate about the value of this type of

education. However, despite this diversity in educational and experience levels, both evaluators expressed positive sentiments regarding the use of the career ladder handbook as an effective management tool.

During the personal interview, Evaluator Two made a suggestion regarding the differences between CAT Scan, Ultrasound, and Nuclear Medicine technologist tasks performed and level of judgment required. This information will be used to revise the Classification section of the handbook to incorporate this differentiation.

In addition, Evaluator Two commented on the numerical value of seminars/professional meetings versus college/university credit hours. The Continuing Education Unit (CEU) section of the handbook will be revised to reflect this recommendation to the Career Ladder Review Board (CLRB).

Both evaluators felt strongly that job satisfaction and productivity could be improved through the implementation of a career ladder program while, at the same time, keeping abreast of the evolving differences in education, training, and responsibilities of 21st century patient care.

LIMITATIONS

One monumental problem which severely impacted the completion of this project was the lack of documentation on the selected subject. The healthcare industry has failed to keep pace with industry in the development of effective management tools which meet the new skills and characteristics of the 21st century. Nursing would appear to be one of the few disciplines

which has pursued the development and implementation of career ladders in the healthcare field. Therefore, there is a scarcity of research in this area for the allied health professionals, and radiology, in particular. There is, in fact, very little information available for the administration of this type of program in the radiology setting and virtually no information available for the freestanding, outpatient environment.

As more levels are incorporated into the program, the more complicated administration of the program becomes. Some skill levels may be difficult to attain due to the limited training available. Due to decreasing corporate training dollars, there may be an increased competition for attendance at educational seminars which may, in turn, create territorial boundaries between the various modalities.

A lack of understanding of the career ladder program may also be a detractor from employee satisfaction. Negative attitudes may surface if the employees do not clearly understand the program. Employees may feel overwhelmed by the various requirements or confused about how the program could actually function.

Some technologists may not wish to climb the career ladder as they may not be interested in attending continuing education programs or pursuing boards for a particular modality.

SUGGESTIONS FOR FUTURE RESEARCH

The survey instrument was limited to one page. A more indepth survey instrument would have provided more feedback from the two evaluators, thus giving the author a wider breadth of material to evaluate. In addition, a larger sample population might be advantageous to the development of the project. Prior to the implementation of the career ladder program, employees will be asked to complete the survey in order to gauge their knowledge base on the subject. The author was further hindered by a lack of current clinical experience as it relates to the sophisticated, medical imaging technology of today and the subtle differences between CAT Scan, Nuclear Medicine, and Ultrasonography tasks.

CONCLUSION

Practice management consultants state that employees rank interesting work, appreciation from the boss, a feeling of being in on things, and job security above good pay (Dolan 91). Little attention has been given to coaching, leading, and developing people as assets and providing professional career paths that reward and enhance professional skills. A basic dilemma faced by all radiology administrators is how to organize tasks and personnel to achieve organizational objectives at an optimum level while balancing high quality patient care with a cost effective operation (Hanwell, Changing Organizational Structures 45). Administration is just beginning

to understand the difficulties of requiring healthcare professionals to acquire more and more knowledge. New competencies may be unrealistic for some workers and the solution may lie in guiding the advancement of workers while redesigning the career development program. Radiology administrators may begin requiring employees to solve their own problems and to thus become involved in continuous improvement (Nielsen 63). The career decision load in radiology has been redistributed from management to include the employee as part of the team who ultimately decides the employees' destiny (Sackett 29). In the past, many radiographers were complacent in their profession, resisted efforts to upgrade educational and professional requirements, and failed to participate in local, state, and national professional organizations. The lack of prestige and poor perception of radiologic technology as a profession presented the additional viewpoint of radiographers being minimally trained individuals engaged in the mechanical aspect of a repetitious task. In some instances, technologists have not actively pursued advanced education unless mandated on the state level (Conlogue 58). This scenario tends to produce disgruntled employees, high turnover, and a non-caring/low-productivity work force (Hilton 23).

Advancement programs designed as career ladders are becoming increasingly important to job satisfaction in today's marketplace. Having the ability to tell prospective employees how they can progress in their career can be one of the most powerful recruitment and retention tools at the employer's dispoal. However, progress is not an employee's given right. It

has to be earned through individual motivation, commitment and perseverance. Management wishes to provide a viable working environment to both challenge professional growth and to encourage and rcognize excellence in clinical practice.

Of course, management can only offer opportunities for training and career development--it is up to the individual to pursue them (Caudron 64B). Career self-management is vital in preparing employees to accept their new relationship to the organization (Encouraging 64M). Many employees expect a nurturing and caring workplace where the environment allows them to grow and develop. If these needs are not met, the employees will begin to make demands for change or perhaps even terminate their employment.

Management must (a) help employees identify skills, values and interests; (b) offer ongoing feedback; (c) help employees create a set of realistic career goals; and (d) help employees develop action plans which facilitate the achievement of goals (Marriott 64I). In addition, many managers have become fearful because they do not perceive a strong work ethic developing among their staff who only wish to spend their time doing what they wish, rather than what really needs to be done. At the same time, staff members continue to demand more and more compensation, recognition, work freedom, time off, and perks (Schroeder 16). The center strives to instill values as an integral part of the health care delivery system

and the management team also encourages and depends upon the staff to help guide the organization. Stress may manifest itself in the individual through organizational stressors such as conditions, and requirements in the organization may be in direct opposition to the needs of the individual. Rotating shift work may disrupt a person's sleeping pattern or technological advances may force people to change against their will. In addition, specific job requirements may not fit the talents, skills and personality of the individual. Role ambiguity may lead to uncertainties and stresses regarding job performance, career advancement, job responsibility, and technological complexity (Dempsey 36). Furthermore, radiology is placed at the junction of medicine and technology and must face the combined challenges of both industries. Radiology professionals must now contend with a rapidly changing regulatory environment, increasing litigiousness, massive mergers, all while delivering quality services to patients in an environment of greatly reduced reimbursement (Wolfe 26). Several of these stressors can be relieved through the encouragement of a greater alignment of the worker and the organization by delineating clearer expectations and requirements through the career ladder framework.

Via the implementation of the Career Ladders for Radiologic Technologist program, management of the center strives to instill values as an integral part of the healthcare delivery system by encouraging the staff to help guide the organization. A career ladder program further demonstrates the strength of commitment to professional development, motivation,

compensation, and recognition. A lack of motivation may manifest itself in an attitude of dissatisfaction toward the individual's job as well as relationships with peers, patients, and management (Cathon 30). On the other hand, employee motivation and performance improve when the employee has a stake in the organization's results and is provided the latitude and flexibility to manage their own professional development (Wolfe 26). Through the career ladder structure employees can clearly see where the next progressive career step is, that they are in charge of their career development, and how they contribute to the overall success of an organization that is respected throughout the community (Lombardi 47). Although turnover among technologists may be small, the goal should be to retain as many staff as possible because departures create turmoil and conflict. Shortages due to high employee vacancy rates can cause chronic employee utilization of overtime and costly expenditures for technical agency services. Retention also can play a crucial role in providing quality patient care.

All too often on the educational front, radiology has not developed its professionals to equal the technology and the educational system has not produced enough talented workers who are prepared to face the challenges of the future. Technologists need to have their skill levels continually refreshed while relearning the basics which may have been forgotten (Sackett 31). In order to focus on sustaining technological excellence, delivering quality service to patients, and establishing a flow of good communication,

each individual should be permitted to concentrate on the areas in which he/she performs best. At the same time, employees will expand their breadth and depth of experience and stay current with evolving technologies. The by product may well be a staff of outstanding people who contribute to their fullest ability and exceed their former levels of performance (Wolfe 29).

Primarily due to manpower shortages, interest has been heightened in improving satisfaction and offering career development in the radiology arena. Radiology administrators who have implemented formal programs for advancement point to increased levels of satisfaction. Advancement programs alone are not likely to solve all the problems related to workplace dissatisfaction. However, there is a higher level of synergy to be achieved when administrators, technologists, supervisors, management, and physicians all work together to development advancement programs. A high degree of partnership and support can evolve through the process and contribute significantly to workplace satisfaction.

In summary, a methodical approach to career development via career ladders can lead to the success of the individual as well as the organization. The utilization of appropriate problem-solving methodology may be useful. The radiologic technologists at all levels should be involved during the planning, development, and implementation phase. This approach may alleviate a myriad of potential problems in the future. All possibilities should be considered in order to ensure flexibility in designing advancement

strategies and to keep abreast of new concepts in healthcare job design.

Ultimately, an organization is only as good as its people. Life is not very meaningful if we do not enjoy the work we do and use it to build relationships, confidence and character. Our labor gives life purpose, direction and integrity and can be much more enduring and meaningful if the labor is achieved in parternship with others.

APPENDIX A

COVER LETTER

05 August 1996

Dear Evaluator:

Thanks so much for consenting to participate in evaluating the handbook portion of my thesis to fulfill the requirements for the Degree of Master of Healthcare Administration. As we discussed earlier, this handbook addresses Career Ladders for Radiologic Technologists.

I have enclosed a copy of the handbook for your review and a one page questionnaire for your completion. Please read over the handbook and answer the questions by circling the appropriate number. If you have any questions, please do not hesitate to contact me either at home or the office.

Once again, I would like to express my appreciation for you taking the time to perform this analysis for me and I look forward to hearing from you shortly.

Sincerely,

Linde Flanders
4007 Barington Court
Florissant, MO 63034
(314) 837-7815 home
(314) 837-5489 office

CAREER LADDERS FOR RADIOLOGIC TECHNOLOGISTS SURVEY

We point to growth of our facility, the sophistication of our medical technology and the high caliber of our staff as a demonstration of our commitment to quality patient care. Through the utilization of career ladders, we could also demonstrate the strength of our commitment to professional development, compensation, and recognition as the care giver. To assist in areas where improvements might be needed, it would be helpful if you would take a few minutes to answer the following questions.

The questions should be answered by circling the appropriate number.

Strongly Agree	Somewhat Agree	Neutral	Somewhat Disagree	Strongly Disagree
1	2	3	4	5

1. **I have a good working knowledge of how career ladders function.**
   1 2 3 4 5
2. **I have been involved in career ladder programs at previous employers.**
   1 2 3 4 5
3. **Career ladders encourage growth, development and job satisfaction.**
   1 2 3 4 5
4. **A career ladder program would be helpful in goal setting.**
   1 2 3 4 5
5. **The career ladder provides a structure within which it is possible to achieve the level of competence and responsibility desired.**
   1 2 3 4 5
6. **The career ladder provides the structure in which an employee can move upward, downward, or laterally, depending upon lifestyle, interests, abilities, and ambition.**
   1 2 3 4 5
7. **All criteria for advancement on the career ladder should be related to the education, experience, skills and competence required in today's environment.**
   1 2 3 4 5
8. **There could be five positions--Tech I through Tech V.**
   1 2 3 4 5
9. **Each level of the ladder should have eligibility requirements.**
   1 2 3 4 5
10. **There is no limit to the number of technologists who may work at these positions.**
    1 2 3 4 5
11. **One of the major factors should be certification.**
    1 2 3 4 5
12. **The portfolio should be professional in appearance, well-organized, neat and legible.**
    1 2 3 4 5
13. **Continuing education should be one of the major factors.**
    1 2 3 4 5
14. **The program should present a step-by-step explanation of how the program works and how the employee fits into it.**
    1 2 3 4 5
15. **Movement on the ladder should be up to the employee.**
    1 2 3 4 5

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