ESTABLISHMENT OF A RUBELLA SCREENING AND IMMUNIZATION PROGRAM AT THE US ARMY COMMUNITY HOSPITAL FORT CARSON, COLORADO

A Problem Solving Project

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In Partial Fulfillment of the

Requirements for the Degree

of

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By

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This study developed a rubella screening and immunization program for health care personnel in an U.S. Army Medical Treatment Facility. All hospital personnel; military, civilian, and volunteer, participated in the program aimed at reducing the possible transmission of the adult-contracted Rubella disease. The study formulated the testing procedures and that the Preventive Medicine Activity would monitor the program progress and results. The research indicated that the "herd immunity" theory did not fully protect hospital staff and patients from contracting or transmitting the rubella disease with the most susceptible patient being the pregnant female. (Keywords)

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TABLE OF CONTENTS

LIST OF FIGURES

I. INTRODUCTION AND PRELIMINARIES

Introduction

Rubella is a common childhood rash disease. Before a rubella vaccine became available in 1969, most cases of rubella occurred in school-age children. However, recently there has been a growing concern in the health care arena for adolescents and young adults. The incidence of reported rubella for adolescents and young adults has not decreased significantly, due to the fact that the vaccine has been primarily used for preschool and elementary school-age children.[1] Since 1976, more than 70 percent of persons with rubella have been 15 years of age or older, with between 10 percent and 20 percent being susceptible.[2]

With respect to the 10 percent to 20 percent susceptibility percentage for individuals 15 years of age and over there is deep concern for the susceptibility of women of children-bearing age. It is estimated that 20 percent of these women are susceptible to rubella and that many of these women are unaware of their immunity status.[3] This possible contraction of rubella is by far the most severe consequence of the disease. The resultant aftermath of fetal anomalies that frequently occur from rubella infections in early pregnancy, especially in the first trisemester, is a tragedy especially for a disease that can be prevented.[4]

During the period 18 June - 4 August 1980, 23 cases of clinical rubella were reported among insurance company employees in an office building in Morris Township, New Jersey.[5] Fortunately, immediate control measures were undertaken before any of the cases were serologically confirmed.[6] Another outbreak, closer to Fort Carson, occurred in Denver, Colorado, during the period 27 January - 26 February 1979 in which nine clinical cases of rubella were reported in employees and patients of a hospital and adjacent rehabilitation center.[7] The first seven cases were in female employees, who ranged in age from 26 to 52 years of age and worked in various areas of the hospital. Six of the seven employees were confirmed as having rubella infection and two of these six individuals had previously been serologically tested for rubella immunity and found to be susceptible, but had not been vaccinated.[8] Rapid responses to both these rubella outbreaks is a fine indication of the individual federal, state, and local agency awareness of this serious health hazard.

However, outbreaks of rubella and the ensuing prepared actions are not unique to the civilian community. In a memorandum for the three Surgeons General from the Armed Forces Epidemiological Board, dated 18 September 1973, the Board unanimously recommended that a rubella vaccination program be established as basic policy for military medical practice.[9] In March 1974, Headquarters, United States Army Health Services Command,

recommended that particular effort should be made to immunize military and civilian females working in Health Services Command health care facilities.[10]

Statement of the Problem

The problem was to develop a viable rubella screening and immunization program for health care personnel at the US Army Community Hospital, Fort Carson, Colorado.

The problem will be researched and developed with the objectives of first developing a viable program that will meet the needs of the US Army Community Hospital and, second, to have a system that will allow the Chief, Preventive Medicine Activity, at the hospital to evaluate the program as to its benefits to the hospital and its patients.

It is deemed necessary that in order to maximize the efficiency of this program and study, as well as minimizing the cost, the following objectives have been established:

1. The program must be mandatory for all personnel working in the hospital. All personnel must be screened for rubella titers, to include military and civilian employees, hospital volunteers, and hospital affiliated nonappropriated fund employees.

2. A titer level of 1:10 will be set as the cut-off for immunization. Any individual whose titer is less than 1:10, will be immunized against rubella. For females of childbearing age, special screening and education will be initiated.

3. A well-defined, command indorsed procedure to screen and immunize all new military and civilian employees, new hospital volunteers, and new hospital affiliated non-appropriated fund employees must be established.

4. A Medical Department Activity Regulation must be written providing the authority for Preventive Medicine to operate the program

Statement of Limitations

The only limitations placed upon the Administrative Resident and this Problem Solving Project are:

1. The added workload of this project must be absorbed by the Preventive Medicine Activity, the Department of Pathology and Personnel Division. No additional personnel spaces will be allotted to the hospital for the program implementation.

2. Any expenditures for this program must be kept at a minimum and any projected costs are subject to review and approval by the Chief, Comptroller Division, US Army Community Hospital, Fort Carson.

Statement of Obstacles to Optimum Research

Obstacles to optimum research are:

1. There are no definite lines drawn as to organizational boundaries since the program will affect all military personnel assigned to the US Army Community Hospital, Fort Carson, as well as civilian employees, hospital volunteers, and hospital affiliated nonappropriated fund employees.

2. Employees of the hospital may refuse or purposely miss the titer or immunization.

3. No mechanism currently exists for record keeping and data banking for the titer or immunization program.

4. Not every civilian employee at the US Army Community Hospital, Fort Carson, is required to have a physical examination.

List of All Limitations

1. Additional workload generated by the new titer and immunization program must be borne by the hospital, i.e., laboratory, preventive medicine, personnel, administration.

2. Funds: Expenditures for the program must be kept at a minimum.

3. Data: There can be no compromise on the data collection procedure. Data will be limited only by the degree of nonparticipation by hospital employees.

4. Personnel: No additional personnel spaces will be allotted to the hospital sections performing this additional mission.

Statement of All Other Factors.

Factors which influence and contribute to the methods of research or the kind of solution attained are:

1. A review of Colorado State Department of Health immunization programs currently in effect for health care facilities in Colorado.

2. A review of existing programs in other Federal hospitals.

3. Compilation of information on susceptibility to rubella by age, sex, and ethnic group will dictate the future programs for rubella prevention.

4. Data on rubella in the military health care facility and the populous of the State of Colorado will be compared at the completion of the project. Results of this comparison will be used by Preventive Medicine Activity in their assessment of the program.

5. Historical factors play no significant role in this program since there never has been a rubella program at the US Army Community Hospital, Fort Carson.

6. The titer testing level and immunization screening standards published by the United States Department of Health, Education, and Welfare, Center for Disease Control, will serve as the benchmark for this program. Final establishment of titer levels will be the responsibility of the Chief, Department of Pathology, US Army Community Hospital, Fort Carson.

Literature Review

A review of the literature for rubella screening and immunization programs provided much information and guidance for the framework of this Problem Solving Project.

The most consistent source used for case studies, statistical references, and historical reviews of rubella

outbreaks was the United States Department of Health, Education, and Welfare, Center for Disease Control, Morbidity and Mortality Weekly Reports. Rubella in Colorado was the front page story in the July 20, 1979 report,[11] while a rubella outbreak in a New Jersey office building highlighted the October 31, 1980 Morbidity and Mortality Weekly Report.[12] Nosocomial Rubella Infection in North Dakota, Alabama, and Ohio (January 9, 1981) was used as background material for demonstrating the need for personnel susceptible to rubella to be identified.[13] In reference to the rubella outbreak in Ohio, the case study emphasized the need for a mandatory requirement that each employee show proof of either a rubella vaccination or serologic immunity to rubella.[14] The mandatory participation in a rubella program was further documented by McLaughlin and Gold and their article on changing hospital policies regarding rubella screening and testing of both female and male employees.[15]

The literature revealed a disturbing aspect found in rubella outbreaks. Strassberg, in his study of a rubella outbreak among the medical staff on an obstetric service of a large Los Angeles hospital, reported that the individual with rubella and his fellow staff members failed to recognize the disease during the course of his illness.[16] Strassberg felt that this failure was possibly due because mild rubella may be difficult to recognize and since it was thought to be uncommon in adults, examining health professionals did not think of

rubella as the disease.[17] Perhaps this mode of thinking is a reflection of the "herd immunity" strategy for rubella as described in Shilian's article for JAMA entitled "Screening and Immunization of Rubella Susceptible Women."[18] The rubella "herd immunity" strategy is to immunize the largest group of susceptible people (prepubertal children), the thought being that this should indirectly protect the real target of rubella control--the susceptible pregnant woman and her fetus. However, this is not universally the case as epidemics of rubella have occurred in communities where the prepubertal group had been immunized (Klock and Rackelefsky).[19]

Consequently, as demonstrated by this review of literature, it is felt that the only reliable method of identifying individuals susceptible to rubella is to perform a rubella serologic test (Weiss, et al).[20] This is done in hospitals of the United States Air Force when they have the capability to perform serological testing for rubella, as recommended by Dr. Robert E. Harris, retired Chairman of the Department of Obstetrics and Gynecology, and Chairman of the Infection Control Committee at Wilford Hall, USAF Medical Center.[21] The US Army Community Hospital, Fort Carson, has the capability to provide this serological testing and this paper provides the mechanism for instituting a 100 percent effective rubella screening and immunization program.

Research Methodology

In the initial stages of this Problem Solving Project, much time and effort was expended on the review of pertinent literature both technical and administrative. Working closely with the Chief, Preventive Medicine Activity, US Army Community Hospital, Fort Carson, an intense examination of successful rubella screening and immunization programs was conducted. Both military and civilian programs were reviewed for applicability to the hospital at Fort Carson. In addition to program formats, technical information from professional journals was extracted to assist in the formulation of titer levels, percent of susceptibility, fetal anomalies caused from rubella, and the need for males to be tested as well as females.

Upon completion of the literature review, many interdepartmental conferences were held to formulate the basis of the rubella screening and immunization program. Briefings conducted to the hospital Infection Control Committee and Commander were necessary for a uniform program to be adopted hospital wide.

Once the rubella screening and immunization program was formulated, with careful consideration being given to the limitations and obstacles to optimum research, the system was developed for implementation. Flow charts were drawn as aids in briefings to all concerned parties with regard to the screening and immunization process. All administrative changes

to inprocessing checklists, as well as the new implementing regulation for the rubella program, will be coordinated with concerned parties prior to implementation.

The key to the program still remains, however, with data collection. Data collection is the cornerstone of the research methodology for the rubella program. Data collection will be used to compile the results of personnel screening and individual titer ratios. The data will be used in a comparison study to national figures on the susceptibility to rubella by age, sex and ethnic groups in order to develop future standards for the US Army Community Hospital, Fort Carson, and to evaluate the success of the new program.

II. DISCUSSION

The Rubella Program

Hospitals throughout the United States in the last few years have responded to the ever-increasing realization that rubella is a major health hazard and a problem that needs to be effectively managed. Unfortunately, there appears to be no unified effort to demonstrate a successful method for a rubella screening and immunization program. Consequently, when the US Army Community Hospital Commander requested that a screening and immunization program be established for our hospital, the project seemed overwhelming. Fortunately, the US Army Community Hospital Commander is a Board Certified Obstetric and Gynecology physician; the Chief, Department of Pathology, is very familiar with titer testing; and the Chief, Preventive Medicine Activity, was responsible for the development of a rubella screening and immunization program at Tripler Army Medical Center, Hawaii.

The first step for development of the US Army Community Hospital rubella program dealt with intense roundtable discussions with health care providers to determine the parameters of the program that must be met:

1. The program developed for the US Army Community Hospital should be mandatory for both male and female employees.

2. Both male and female employees will be screened to determine immunologic status prior to a decision to vaccinate.

3. Employees will participate in the rubella program at no cost to them.

4. Female employees whose titer dictates vaccination MUST be counseled as to problems and precautions before being vaccinated.

5. If approved by the US Army Community Hospital Commander, the program will begin with the 1 June 1981 orientation seminar for new employees. The rubella program for employees already working at the hospital will be phased in between 1 June 1981 and the end of calendar year 1981.

6. At the end of the rubella phase-in period, those employees who could not be vaccinated will be reassigned outside of high risk areas in the hospital.

The US Army Community Hospital Command, throughout every program planning and briefing session, continued to emphasize that the rubella program MUST be mandatory for all employees. This requirement of mandatory participation is an unwaiverable parameter, since this is the only way a 100 percent guaranteed effective program can be insured. The consequences of rubella and the documented fact that a level of "herd immunity" is not evidenced by rubella.[22] The best voluntary programs have only been able to reach an 85 percent immune rate outside of high-risk areas.[23] The hospital environment must be examined in a different light than office buildings in New Jersey--this being due to the potential heavy exposure of pregnant women.

The protection of pregnant women to rubella in the hospital setting is paramount due to the serious repercussions of the disease and the fact that a pregnant woman cannot be immunized since the consequences may be the same as the disease. Thus, the only viable alternative to protect pregnant women from exposure is to eliminate the sources of exposure by immunizing everyone else. This protection process for the pregnant woman, therefore, must include both males and females if the parameter of mandatory program participation is to be satisfied. Both sexes can transmit the disease to a pregnant woman and, in fact, several major hospital outbreaks have been documented by the Center for Disease Control that have shown male staff personnel as the infectors.[24] It is with this in mind that the parameter of the rubella program is met as mandatory participation of male and female employees is indorsed by the Hospital Commander.

The second parameter--that of screening both male and female employees to determine immunologic status prior to a decision to vaccinate is for three reasons. First, the hospital can avoid unnecessary immunizations and the possibility of side effects to the vaccine. Second, by not having to immunize everyone, the cost of operating the rubella program will be reduced. Third, by screening before requiring immunizations, it is assumed that employee resistance to the rubella program will be kept to a minimum. The United States Air Force

has shown that the vaccine of the titer to determine susceptibility is less than vaccine cost, and is, therefore cost effective.[25]

Cost of the program is a major consideration. The third parameter established at the outset of this study was that employees will participate in the rubella program at no cost to them. It was felt that since the program is mandatory and is a condition of employment, the hospital command instructed that all associated costs for laboratory and medical administrative services will be paid for by the US Army Community Hospital. This was earmarked by the Hospital Comptroller as budgetary requirements for military benefits for the population and under the occupational health program for civilian employees. Costs were broken down by the comptroller as to laboratory tests (HAI), the actual vaccine for the 20 percent estimated population that would need a vaccine, and the pharmacy increase for the anticipated rise in demand for contraceptives for women required to be immunized who do not use birth control devices. In examining all the cost increase areas, the laboratory costs are the most significant as the rubella titer is not performed by the US Army Community Hospital laboratory but, instead, the samples are sent to Brooks Air Force Base, San Antonio, Texas, for evaluation. The medical administrative services were not significant as labor for administering the program is furnished internally by the hospital human resources, thus, no cost increases are expected in this area. The Pharmacy is able to provide contraceptives

prescribed by OB-Gyn Service for those eligible for pharmacy services, while prescriptions for civilian employees must be filled other than by the Hospital Pharmacy.

The fourth parameter that female employees whose titer dictates that a vaccination is necessary, MUST be counseled as to problems and precautions before they receive the vaccination, was felt to be extremely important to the US Army Community Hospital Command. Counseling will be provided by the OB-Gyn Clinic. Under the direction of the Chief, OB-Gyn Service, health care providers will clearly demonstrate the associated risks and the necessity to avoid pregnancy following a rubella vaccination. These risks are associated with the premise that due to the live virus used, there is a small risk of infecting rubella in the pregnant female. Prospective studies of pregnancies complicated by maternal rubella during the first trisemester have estimated the risk of congenital infection to be as high as 50 percent, depending upon the method of assessment.[26] Thus, the importance of the OB-Gyn counseling. The female counselee must be informed of the harmful repercussions to a fetus from rubella, such as eye lesions (cataracts, glaucoma), deafness, cardiac malformations, mental retardation, cerebral palsy, and severe behavior disorders.[27] With the mental burden of these possible disabilities for a child, spontaneous abortions and the therapeutic abortions for the concerned mother probably will

increase. In this respect, as part of the OB-Gyn counseling program, a pregnancy test will be performed and some form of contraception prescribed for three months following vaccination, all under the watchful eye of the individual's physician. This policy is within the guidelines of the Center for Disease Control's recommendations for immunization practices.[28]

The fifth parameter required a definitive starting date for the program, and 1 June 1981, was selected contingent upon approval of the US Army Hospital Commander. This parameter is a necessary program requirement in order to give the program implementors a definitive starting point. The 1 June 1981 starting point is in line with the ongoing US Army Community Hospital New Personnel Orientation Program. By initiating the rubella program with new hospital personnel employees, the medical administration of the program can, name by name, identify those hospital personnel who have not been tested. Without an exact starting date and a defined population as of this date, the hospital staff would then absorb the untested new arrivals, and accurate record keeping would be most difficult to maintain. Steps to be taken with new hospital personnel are simply to modify the inprocessing checklists for military personnel (officers and enlisted) by adding the outpatient laboratory as an inprocessing station where blood can be drawn. Copies of the MEDDAC Inprocessing Checklist for Military Personnel (Officer and Enlisted) are included as Appendix A. For all new civilian

employees, the Occupational Health Clinic will be added as an inprocessing station on their checklist. A copy of the MEDDAC Inprocessing Checklist for Civilian Employees is included as Appendix B.

Once the new hospital personnel are administratively accounted for, the remaining hospital staff will be divided by organizational elements (departments and services) based on MEDDAC Form 518, "Manpower Allocations Authorized and Actual" (Appendix C). Then on a weekly basis, personnel of a scheduled organizational element will visit the laboratory for their blood draw. Prior to a department's or service's scheduled week, individual health records will be screened for recorded results of previously tested rubella titers. If an individual has already been tested for rubella susceptibility, and appropriate medical action taken and recorded, the individuals will be removed from the screening program and the hospital roster will be deleted to reflect this. All other department and service personnel will be given, at the beginning of their scheduled week, preprinted laboratory slips by name, for their blood draw. The Chief, Department of Pathology, will be responsible for administering this laboratory testing program, and at the end of the week will provide the Chief, Preventive Medicine Activity, a roster of those individuals tested during the week. Upon the return of laboratory results, department and service personnel whose titer was less than 1:10 will be

notified of their rubella susceptibility by the Chief, Preventive Medicine Activity. For female employees, this notification will be accompanied by a referral to OB-Gyn for counseling or immunization.

Completion of the screening and immunization program for hospital personnel will be at the discretion of the Chief, Preventive Medicine Activity. By following a regimented, week by week screening program for department and service personnel, the rubella screening process should be completed once 100 percent roster participation has been satisfied. As for the newly hired hospital employees, the screening and immunization program is incorporated into the permanent hospital orientation program for newly assigned personnel. This will provide the Chief, Preventive Medicine Activity, a monitoring system to insure that all hospital personnel have participated in the mandatory program. Feedback to the Chief, Preventive Medicine Activity, from the Chief, Department of Pathology, with regard to the number of susceptible titers (1:10) processed by the laboratory will allow ongoing reevaluation of the merits of continuing the program. It is anticipated that the US Army Community Hospital will have to continue the program for its employees for quite some time, but it is envisioned eventually that new personnel coming to the hospital will have already been vaccinated for rubella either in childhood or perhaps at their last duty station (military) or former place of employment since the rubella vaccination has been available since 1969.

Management of Military Personnel

All newly assigned military personnel, officer and enlisted, are required to inprocess through the US Army Community Hospital Personnel Division. A flow chart, listed as Figure 1, depicts a clear cut screening and immunization process to be followed for military personnel, starting with inprocessing. With the cooperation of the Chief, Military Personnel Division, a modification of the military inprocessing checklist will be made requiring military personnel to inprocess through the Hospital Laboratory for rubella testing and evaluation. Appendix A contains copies of the officer and enlisted inprocessing checklists. Preprinted hospital laboratory requests (Appendix D) for blood draw are attached to each inprocessing checklist. The laboratory, upon completing their blood draw, forwards the individual soldier's titer results to the Chief, Preventive Medicine Activity, for monitoring of the program.

The established titer of 1:10 governs the action to be taken by Preventive Medicine. Titers equal to or greater than 1:10 are considered protective and, except for recording their titer in the individual's health record, no further action is necessary. However, if an individual has a titer less than 1:10, the individual is notified of their immunologic status via the hospital "Rubella Referral Form for Military Personnel." A copy of this referral form is found at Appendix E.

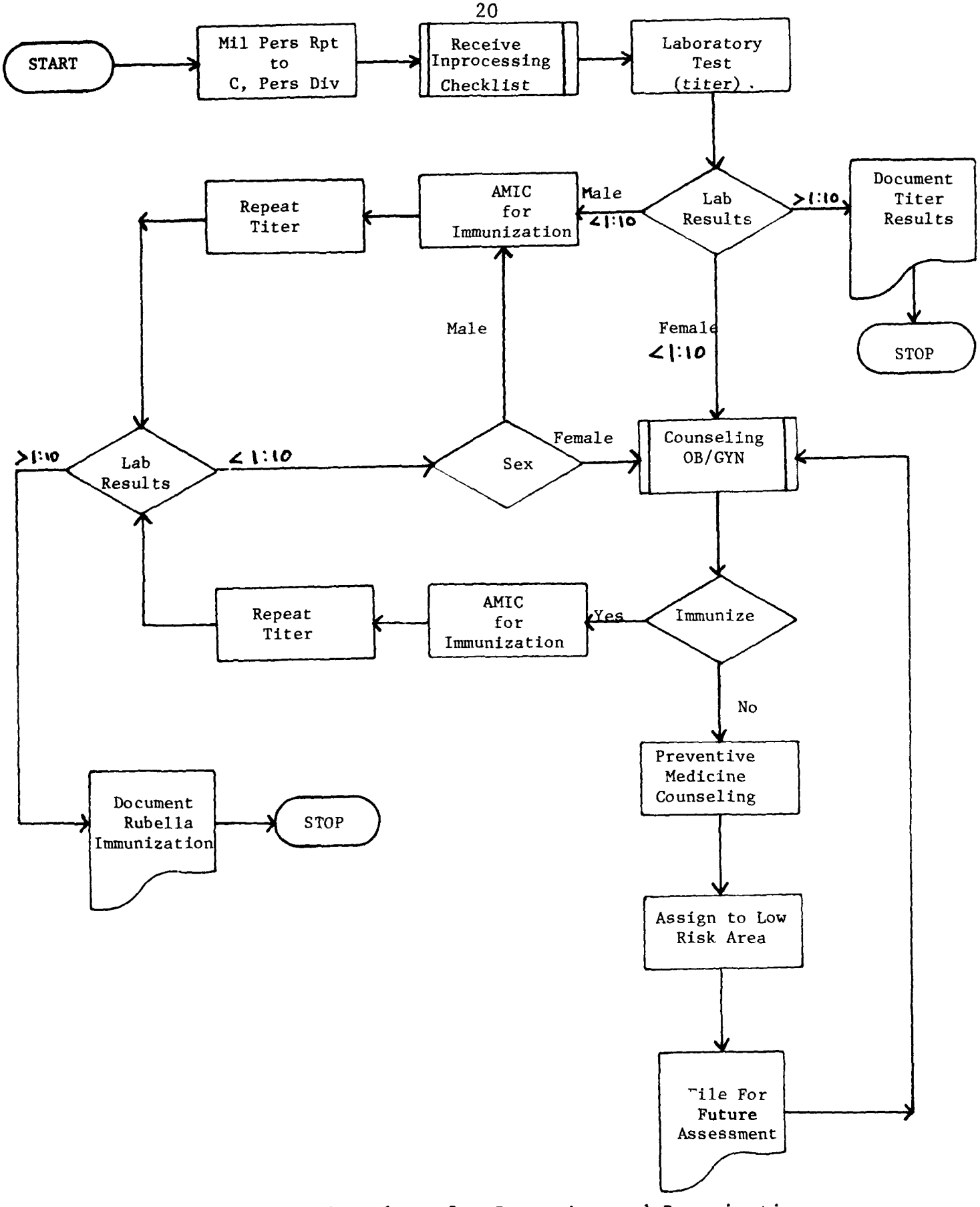


Figure 1. Flow Chart for Screening and Immunization of MILITARY PERSONNEL

Male soldiers with titers of less than 1:10 will report to the Acute Minor Illness Clinic for their immunization. The Acute Minor Illness Clinic, upon administering the vaccination, completes the male portion of the referral form and returns it to the Chief, Preventive Medicine Activity. Thirty days after the immunization, the Chief, Preventive Medicine Activity, sends a request for the male soldier to have a repeat titer in order to ascertain that the individual is no longer susceptible to rubella.

Female soldiers with titers of less than 1:10 must be handled differently than their male counterparts as precautions must be taken for pregnancy. Counseling is provided the female soldier on the consequences of becoming pregnant following immunization. Due to the ever present danger of rubella and pregnancy, all females with titers less than 1:10 are referred to the OB-Gyn Clinic for examination and counseling by a physician. A recommendation is then made by the physician as to the female soldier's eligibility for immunization. If the OB-Gyn physician determines that the individual can be immunized, she is referred to the Acute Minor Illness Clinic where she will receive an immunization in the same manner as the male soldier. For those ineligible for immunization due to pregnancy or other complications as assessed by the OB-Gyn physician, efforts are to be undertaken by the Chief, Preventive Medicine Activity, to insure that the individual initially works

in a low risk area where contacts with pregnant women are minimal. This assignment will prevail until immunization procedures can be completed. An intense counseling session is also provided the susceptible individual as to the signs or symptoms of rubella and the reporting mechanisms to use if the least suspicion of rubella is suspected.

The rubella program, commencing 1 June 1981, is easily manageable for newly assigned military personnel. A "catch-up" process for military personnel already assigned to the hospital prior to the start date of the program will be used on a weekly basis until all military employees are screened. A current hospital roster, monitored by the Chief, Preventive Medicine Activity, will be divided into organizational elements (departments and services). Health records of military employees will be screened to insure that no record of a previous titer is present in the health record. Then, all the remaining employees, by department or service, will be scheduled for their laboratory blood draw. Appendix F is the notice of implementing instructions to be sent to department and service chiefs. At the end of each scheduled group, titer results are returned to Preventive Medicine and the same process is followed that was previously mentioned for newly assigned military personnel.

Management of Civilian Personnel

A comparison of the flow chart for the screening and immunization of military personnel and the civilian screening and immunization mechanism shown as Figure 2, reflects that both systems are essentially the same. The major differences can be found in the referral mechanism and the insertion of the Occupational Health Clinic into the system. The Occupational Health Clinic is included on the new civilian employee inprocessing checklist as the referral point from the Hospital Personnel Office. All new civilian employees will be advised by the Hospital Personnel Office that immunity to rubella is a condition for employment. The Occupational Health Clinic will provide each new civilian employee with a preprinted laboratory slip (Appendix D), thus insuring the close monitoring of the rubella titer test. All titer tests that return with a reading equal to or greater than 1:10 will be considered acceptable as protective of rubella and, consequently, no further action will be required for these new employees. However, those new civilian employees that have a returned titer reading of less than 1:10 will be notified by the "Rubella Referral Form for Civilian Employees" (Appendix G), from the Occupational Health Clinic.

The "Rubella Referral Form for Civilian Employees" will be dependent upon the sex of the employee. Male employees will be sent to the Acute Minor Illness Clinic for their immunization.

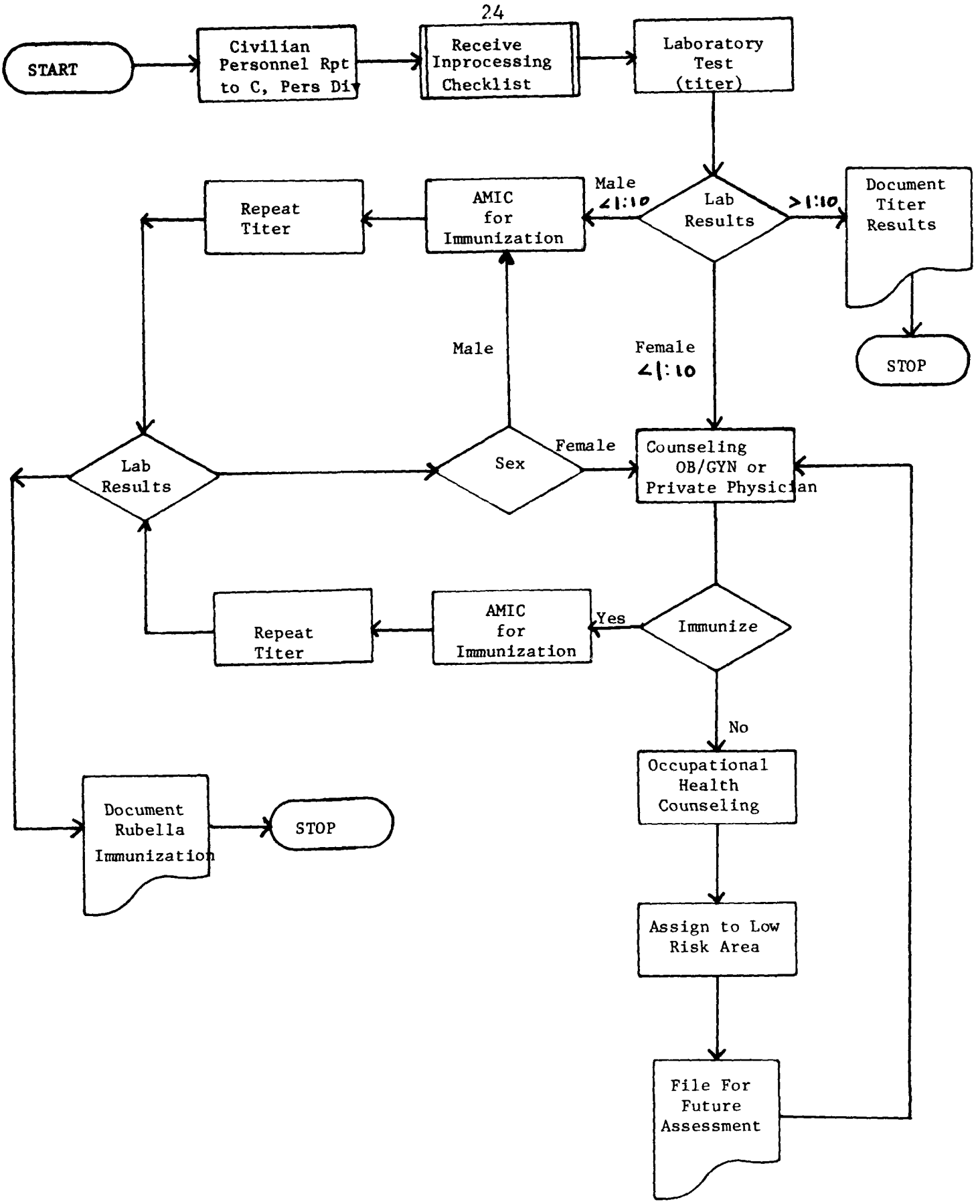


Figure 2. Flow Chart for Screening and Immunization of CIVILIAN PERSONNEL

Upon receiving the immunizations, the Acute Minor Illness Clinic will return the verification of immunization to the Occupational Health Clinic. A request for a follow-up titer will be sent in one month after the immunization to insure that the individual's titer is now greater than 1:10.

The civilian female employees will be processed slightly differently than their male counterparts. Female employees with titer test results less than 1:10 will be referred for rubella counseling to either Hospital OB-Gyn Clinic or, if they elect, their own physician. If the employee elects to visit her own physician, the cost of the medical counseling will be borne by the individual. The counseling procedure of the physician will outline the rubella disease itself plus the problems associated with immunization to include the necessity of avoiding pregnancy for three months after immunization. A recommendation is then made concerning the female employees' eligibility for immunization. Those female employees eligible for immunization are referred to the hospital's Acute Minor Illness Clinic and follow the same procedure as do the males. Women who are termed ineligible for a rubella immunization because they are pregnant or because of other medical reasons determined by their physician are referred back to the Occupational Health Clinic. The Occupational Health Clinic will then initiate a request to the Hospital Personnel Office to utilize the employee in an area of reduced risk until such time that a physician determines that the employee can be vaccinated.

Management of Other Personnel

As previously described in the Introduction of this Problem Solving Project, in order to be 100 percent confident all hospital personnel must have titer tests and immunization if necessary. This category of hospital personnel must also include individuals who are not employees of the hospital, but who work within the hospital.

The Chief, Preventive Medicine Activity, has identified two major categories of workers that need to be included in the rubella program. These two groups are:

1. Nonappropriated Fund Employees.
2. American Red Cross Volunteers.

It was felt by the Chief, Preventive Medicine Activity, that these two categories would cover most of the personnel associated with the hospital. If there are other personnel that fall outside of these two general categories of hospital associated personnel, they will be handled on a case-by-case basis by the Chief, Preventive Medicine Activity.

Nonappropriated Fund activities are small in number at the US Army Community Hospital, Fort Carson, and are responsible for only operating a small post exchange and a barber shop. Exchange personnel and their concession operate under hospital policies and local MEDDAC Regulations. Consequently, these personnel will comply with the hospital rubella screening and immunization program as directed by the Hospital Commander and MEDDAC Regulation 40-562. A copy of this proposed regulation

may be found in Appendix H. The Nonappropriated Fund employees governed by MEDDAC Regulation 40-562 will follow the same course as other civilian employees.

The second category of hospital associated employees is the large group of volunteers involved with patient care and services. These volunteers are sponsored by the American Red Cross and provide an invaluable service for the hospital. The Fort Carson American Red Cross Station Director was contacted and with his concurrence the American Red Cross volunteers will participate in the rubella titer and immunization program. The Fort Carson Station Director was asked for concurrence with the requirement that the full-time staff in the hospital and regular volunteers must participate in the rubella program. All American Red Cross volunteers who desire to serve in the hospital process through the Red Cross Hospital Field Office. During this processing, the volunteeers will receive laboratory requests and proceed to the laboratory for a titer test, unless previous proof of a titer or immunization can be shown. Notification of titer results and or need for counseling or immunization will be made by the Chief, Preventive Medicine Activity, to the Red Cross Hospital Field Office. Upon completion of all necessary referrals for the volunteers, the particular forms needed for each person will be returned to the Chief, Preventive Medicine Activity, for record keeping.

Regulatory Authority

Medical Department Activity Regulation 40-562 is listed in Appendix H. This local regulation has been written to encompass new employees entered on the hospital personnel rolls after 1 June 1981. Medical Department Activity Regulation 40-562 is designed to provide a clear cut policy and program definition for all employees at the US Army Community Hospital, Fort Carson. The Medical Department Activity Regulation covers those military personnel who will serve under the jurisdiction of the Commanding Officer. For those civilian employees, there appears to be a question of authority and power of the Commanding Officer to require civilian employees already employed at the hospital as of 1 June 1981 to participate in the Program. Union contract negotiations will commence on 21 May 1981 and the mandatory nature of the rubella screening and immunization program will be presented by management. It is anticipated that the Union will agree with the importance of the rubella program with regard to patient care and safety, thus endorsing mandatory participation of civilian employees in the program. However, if the Union does not feel the rubella program should be mandatory and that presently employed workers need not be required to have rubella titers or immunizations, job descriptions at the Annual Position Survey will be rewritten with the program requirement added as a condition of employment. Thus, through attrition and over a

one year period of job description updates, the conditions of employment of participation in the rubella screening and immunization program will cover all civilian employees. It is hoped that the writing of job descriptions to add a condition of employment will not be the method needed to insure 100 percent compliance, and that US Army Community Hospital civilian employees that are employed prior to the start of the rubella program will volunteer to participate.

Program Evaluation-Cybernetics

Referring to the statement of the Problem found in the introduction of the Problem Solving Project, the project was to be divided in two phases. The first phase was to establish a rubella screening and immunization program for the US Army Community Hospital, Fort Carson. The second phase was to evaluate the effects of the program in order to assist the Chief, Preventive Medicine Activity, in her assessment of the program and the statistical danger of rubella infection from hospital personnel to the patients. Data will be collected and categorized by age, sex, and ethnicity. The Chief, Preventive Medicine Activity, can then compare this data with other serological rubella data on military and civilian populations. Laboratory requests (Appendix D) will require an individual's identity, age, and ethnic background. All slips must be complete for the data collection process to be valid. The Chief, Preventive Medicine Activity, is responsible for

providing a laboratory slip screening mechanism that will insure that all portions of the laboratory slip are complete.

When evaluating this program through the feedback and data collection process established, particular attention will be focused by Preventive Medicine upon the female employee, particularly the civilian female employee hired prior to 1 June 1981. The female employee requires special attention and thus has become the "target population" to be affected by the rubella program. However, the program as established by this paper has no tolerance for a reduced emphasis on other populations based on the "herd immunity" problem. The responsibility must lie with Preventive Medicine to monitor the other than target population with regard to increased pressure and emphasis for mandatory participation as well as those of the target population--particularly the target population employed in high risk areas of the hospital.

This close monitoring of the target population should not lead to a compromise in the program's desired results of rubella immunity for the entire hospital workforce. A viable program to achieve hospital immunity can be established if this Problem Solving Project is carefully followed. All aspects of an operational system with its input, transform, output, and feedback have been provided. The results of the proposed program cannot be reported and evaluated until the program has been approved, initiated, and completed.

III. CONCLUSION

Congenital rubella is a preventable disease that still causes problems in modern health care today. By far, the most severe consequence of this childhood rash disease is fetal anomalies that frequently result from rubella infection in early pregnancy. Rubella virus can cause children to be born with cataracts, deafness, heart defects and mental retardation.

Perhaps the most hazardous environment for rubella exposure is the hospital. This is an area of grave concern and was the concern of the US Public Health Service Advisory Committee on Immunization Practices. Their recommendation, made on November 17, 1978 was that "persons working in hospitals and clinics who might contact rubella from infected patients or who, if infected, might transmit rubella to pregnant patients should be immune to rubella."[31] Thus, the need for a rubella screening and immunization program is of twofold importance; first, protecting hospital personnel that are a high risk to develop rubella; second, protecting patients from exposure to rubella virus carried by hospital personnel. There is no "herd immunity" to rubella. A hospital staff member can indeed contact the disease (male or female), and expose large numbers of people within the hospital area regardless of the facility or clinical conditions.

It is the desire of the Chief, Preventive Medicine Activity, US Army Community Hospital, and the Hospital Commander to insure the safety of pregnant women who are entering areas of the hospital. Since pregnant women are not generally considered eligible for a rubella vaccination, the only conceivable measure that could protect these women is a 100 percent mandatory rubella screening and immunization program for hospital personnel. The immunologic status of all hospital personnel must be known and recorded and all eligible hospital personnel found not immune must be vaccinated.

The Chief, Preventive Medicine Activity, realizing the seriousness of rubella and the fact that it is preventable, requested through approval of the Commander, US Army Community Hospital, Fort Carson, that the Administrative Resident develop a rubella screening and immunization program for the hospital as the required Problem Solving Project. The rubella program as designed, incorporated two major objectives. The first objective was to design a viable program for all personnel working or associated with the hospital. The second objective was for the system designed to have a feedback mechanism that will allow the Chief, Preventive Medicine Activity, at the hospital to evaluate the program as to its benefits to the hospital and its patients.

On establishing a viable system for rubella screening and immunization, the system will be initiated in two phases.

The first phase will start with the definitive date of 1 June 1981, and will affect all new employees, military and civilian, that are hired after the program start date of 1 June 1981. Titer tests will be performed on all new employees when they inprocess and the titer results will be recorded. Those with titers less than 1:10 will be immunized unless, in the case of a female, she is pregnant. Immunity to rubella will be a condition of employment effective 1 June 1981 and every new employee will have this explained to them at the hospital inprocessing seminar. Adequate counseling and examination by a physician in the OB-Gyn Clinic will be provided females with titers less than 1:10. Military personnel are monitored by the Hospital Preventive Medicine Activity while civilian employees will be processed through the Occupational Health Clinic.

The second phase of the rubella screening and immunization program centers around those employees and personnel that were associated with the hospital on the commencement of the program. The Preventive Medicine Activity will screen all military and civilian health records for any evidence of previous titers or rubella immunization. Upon identification of those individuals that have had titers or immunizations, the remaining members of the workforce will be divided by organizational elements as shown on MEDDAC Form 518, "Manpower Allocations Authorized and Actual" (Appendix C). Personnel

in these organizational elements will have their blood draws done on a week-by-week basis and those individuals with titers less than 1:10 will be required to be immunized through the same mechanism that is provided for new hospital employees.

IV. AFTERWORD

This Problem Solving Project was a tremendous educational experience for the Administrative Resident. Besides the technical knowledge gained by research into the rubella disease itself, development of the rubella screening and immunization program entailed a great deal of interdepartmental coordination, thus providing the Administrative Resident a "hands on" opportunity to see a true hospital matrix management model at work.

Development of this complex program required tight coordination with the professional staff of the hospital with respect to laboratory tests, medical input for titer levels, professional counseling, Infection Control Committee briefings, and command updates with the Hospital Commander.

Also, liaison had to be initiated with elements outside of the hospital complex offering the Administrative Resident a chance to work with other managers of different organizational structures.

However, the true beneficiary of this Problem Solving Project is not the Administrative Resident, but Fort Carson's US Army Community Hospital itself. For the first time at this hospital, a viable system has been developed for rubella screening and immunizing. The system outlined in this paper offers the opportunity for this "Community Hospital" to indeed

perform a service to its community. This program, as systematically established, will provide the patient in the hospital a healthy, safe environment, free of the dreaded disease rubella and its horrible effects on newborns. It is hoped all health care providers will step forward with a refreshing attitude of concern for the patient. With such a positive attitude nosocomial rubella from hospital personnel can be completely eliminated.

FOOTNOTES

[1]United States Department of Health, Education, and Welfare, Center for Disease Control, "Rubella Prevention," Morbidity and Mortality Weekly Report, February 6, 1981, p. 37.

[2]Marc A. Strassburg, "Rubella Outbreak Among Hospital Employees," Obstetrics and Gynecology (March 1981): p. 283.

[3]Roy M. Pitkin, Clinical Obstetrics and Gynecology (Hagerstown, Maryland: Harper and Row, June 1979), p. 322.

[4]United States Department of Health, Education, and Welfare, Center for Disease Control, "Rubella Prevention," p. 37.

[5]United States Department of Health, Education, and Welfare, Center for Disease Control, "Rubella Outbreak In An Office Building - New Jersey," Morbidity and Mortality Weekly Report, October 31, 1980, p. 517.

[6]Ibid.

[7]United States Department of Health, Education, and Welfare, Center for Disease Control, "Rubella in Hospital Personnel and Patients - Colorado," Morbidity and Mortality Weekly Report, July 20, 1979, p. 325.

[8]Ibid.

[9]Memorandum For Record, Armed Forces Epidemiological Board, subject: Rubella Immunization Policy, dated 18 September 1973, p. 1.

[10]Department of the Army, Headquarters, United States Army Health Services Command, "Rubella Immunizations of Females," letter, HSC-PA, March 20, 1974.

[11]United States Department of Health, Education, and Welfare, Center for Disease Control, "Rubella In Hospital Personnel and Patients - Colorado," p. 325.

[12]United States Department of Health, Education, and Welfare, Center for Disease Control, "Rubella Outbreak In An Office Building - New Jersey," p. 517.

[13]United States Department of Health, Education, and Welfare, Center for Disease Control, "Nosocomial Rubella Infection - North Dakota, Alabama, Ohio," Morbidity and Mortality Weekly Report, January 9, 1981, p. 629.

[14]Ibid.

[15]Mary C. McLaughlin and Lawrence H. Gold, "The New York Rubella Incident: A Case For Changing Hospital Policy Regarding Testing and Immunization," American Journal of Public Health (March 1979): p. 287.

[16]Strassburg, p. 286.

[17]Ibid.

[18]Deborah M. Shlian, "Screening and Immunization of Rubella Susceptible Women," JAMA (August 18, 1978): p. 662.

[19]K. E. Klock and G. S. Rachelefsky, "Failure of Rubella Herd Immunity During An Epidemic," JAMA (January 1973): pp. 69-72.

[20]K. E. Weiss, C. E. Falvo, E. Buimovici-Klein, J. W. Magill, and L. Z. Cooper, "Evaluation of An Employee Health Service As A Setting for A Rubella Screening and Immunization Program," American Journal of Public Health (March 1979): p. 281.

[21]Robert E. Harris, "The Present Status of Rubella and Rubella Vaccine," USAF Medical Service Digest (September-October 1980): p. 30.

[22]Klock and Rachelefsky, pp. 69-72.

[23]Dianne Werdegar, "Guidelines for Infection Control Aspects of Employee Health," Journal of the Association of Practitioners in Infection Control (December 1977): p.22.

[24]McLaughlin and Gold, p. 287.

[25]"Screening Saves Vaccine Costs," U.S. Medicine (April 1, 1979)

[26]J. Alastair Dudgeon, "Congenital Rubella: Pathologenesis and Immunology," American Journal of the Diseases of Children (July 1979): p. 42.

[27]American Journal of Public Health, "Rubella Immunization: Progress, Problems, and Potential Solutions," American Journal of Public Health (March 1979): p. 217.

[28]United States Department of Health, Education, and Welfare, Center for Disease Control, "Recommendations of the Public Health Service Advisory Committee on Immunization Practices," Morbidity and Mortality Weekly Report, November 17, 1978, pp 451-462.

[29]Klock and Rachelefsky, pp. 69-72.

[30]United States Department of Health, Education, and Welfare, "Recommendations of the Public Health Service Advisory Committee on Immunization Practices, pp. 451-462.

[31]Ibid.

APPENDIXES

APPENDIX A

MEDDAC INPROCESSING FOR MILITARY PERSONNEL

DISPOSITION FORM

For use of this form, see AR 340-15, the proponent agency is TAGCEN.

REFERENCE OR OFFICE SYMBOL	SUBJECT
AFZC-MD-P	MEDDAC Inprocessing

TO | FROM: Chief, Personnel Div | DATE | CMT 1

1. As part of your inprocessing at MEDDAC, Fort Carson, you are required to process through the following activities:

a. Sign-in and process through MEDDAC Personnel (Bldg 6225) _____

b. Central Inprocessing (Bldg 6265) _____

c. Adjutant, (Bldg 6225) Room 107 - Meal Card _____

d. Plans, Operations & Training, (Bldg 6225) Room 203 _____

e. Clinical Support (Bldg 6225) Room 209
(Credentials for MC only) Appointment time_____ _____

f. Unit Supply (Bldg 6244) _____

g. Laboratory Officer (Bldg 6243) (MC's only) _____

h. Pharmacy (Bldg 6232) (MC, DC, Nurse Clinicians & PA) _____
Appointment time_____

i. Mailroom (Bldg 6261) _____

j. Chief of Professional Services _____
Appointment time_____

k. Outpatient Laboratory for rubella titer test _____

2. All Doctors need to stop by Preventive Medicine and pick up DD Form 1141 for MEDDAC's Photodosimetry Program. Appointment time_____Date_____.

3. You are to report to the Fort Carson Commanding General's In-Briefing the first or third Thursday of the month ( ) at 0750 hours. Location of the briefing is the Main Conference Room, Building 1430.

4. You are to report to the Commander's New Officer In-Briefing to be held on _____at_____in_____Building 6225.

After completion of 1 through 4 above, sign below and return to the MEDDAC Personnel.

_____
SIGNATURE

DA FORM 1 FEB 62 2496 REPLACES DD FORM 96, WHICH IS OBSOLETE.

U S GPO 1979-0-310-981/8129

DISPOSITION FORM

For use of this form, see AR 340-15, the proponent agency is TAGCEN.

REFERENCE OR OFFICE SYMBOL	SUBJECT
AFZC-MD-PC	In-processing of Enlisted Personnel

TO All In-Processing Personnel FROM Commander, Med. Co. MEDDAC DATE CMT 1

1. The below procedure will be strictly followed during in-processing of all personnel. While in-processing thru the 4th AG Replacement Detachment, make sure that the in-processing personnel are aware that you are assigned to MEDDAC. This will avoid an unnecessary inprocessing.

a. Issue of locator cards, meal card, and separate rations if required_____

b. Personnel: Bldg 6225 Lower West _____

c. Reenlistment: Bldg 6251 Lower North _____

d. Unit Supply: Bldg 6244 Lower South_____

e. Education Counselor: Bldg. 6225 Upper West _____

f. Plans, Operations & Training: Bldg 6225 West _____

g. Skill Development Center: Bldg 6248 Lower North _____

h. Laboratory: Bldg 6243 Lower North _____

i. Mail Room: Bldg 6261_____

j. Read Medical Company S.O.P. _____

k. Orientation by the 1SG at 1530 hours (Duty Roster)._____

l. Outpatient Laboratory for rubella titer test _____

2. Enlisted personnel will not report to their duty station until instructed to do so by the First Sergeant.

3. I hereby certify by my signature below that I have been advised that claims for loss of money in excess of $100.00 will be normally disapproved since banking facilities are available. Reference FC & 4th Ind Div Regulation 190-6, Para 6b (8).

_____
SIGNATURE

PRINT NAME_____

GRADE_____

SSAN_____

DATE ASSIGNED_____

SECTION ASSIGNED_____

DA FORM 2496 REPLACES DD FORM 96, WHICH IS OBSOLETE

U.S. GPO 1979-0-310-981/8129

APPENDIX B

MEDDAC INPROCESSING FOR CIVILIAN EMPLOYEES

DISPOSITION FORM

For use of this form, see AR 340-15, the proponent agency is TAGCEN.

REFERENCE OR OFFICE SYMBOL	SUBJECT
	MEDDAC Inprocessing for Civilian Employees

TO FROM Chief, Personnel Div DATE CMT 1

1. As part of your inprocessing at MEDDAC, Fort Carson, you are required to process through the following activities:

   a. Sign-in and process through Chief, Personnel_____

   b. Plans, Operations & Training (Bldg 6225)_____

   c. Medical Library_____

   d. Occupational Health Clinic (Titer test referral)_____

2. You are to report to the MEDDAC Commander's Orientation Program to be held on _____at_____in Baird Hall, USACH.

3. After completion of inprocessing, please sign below and return to Chief, Personnel Division.

_____
SIGNATURE

DA FORM 1 FEB 67 2496 REPLACES DD FORM 96, WHICH IS OBSOLETE.

U.S GPO 1979-0-310 981/8:29

APPENDIX C

MEDDAC FORM 518
MANPOWER ALLOCATIONS AUTHORIZED AND ACTUAL

MANPOWER ALLOCATIONS AUTHORIZED AND ACTUAL

AS OF (DATE) 31 March 1981

ORGANIZATIONAL ELEMENT	OFFICERS												CHAP & WO		ENL		OTHERS		CIVILIANS				TOTAL	
	MC		MSC		VC		DC		ANC		AMSC								FTP		TPT			
	AUTH	ACT	AUTH	ACT	AUTH	ACT	AUTH	ACT	AUTH	ACT	AUTH	ACT	AUTH	ACT	AUTH	ACT	AUTH	ACT	AUTH	ACT	AUTH	ACT	AUTH	ACT
HQ COMMAND	2	2	3	3											3	3			10	9		1	18	18
DEPT OF MEDICINE	14	14							4	6				1	26	28	45	46	41	38		3	85	90
DEPT OF SURGERY	21	19	4	5					10	8	3	3			46	43	7	16	36	33		1	119	112
DEPT OF PSYCH	3	3	1	1											3	6	7	8	2	2			9	12
DEPT OF NURSING									43	45					60	61	12	10	86	85			189	191
DEPT OF PATHOLOGY	2	2	1	1											9	7	5	2	26	25			38	35
DEPT OF RADIOLOGY	1	2													14	9	1	1	15	13			30	24
PHARMACY SVC			6	6											11	12			10	10			27	28
SOCIAL WORK SVC			2	2											5	5			2	2			9	9
CHAPLAIN PASTORAL													1	1	1	1							2	2
COMPTROLLER DIV			4	2															8	7			9	9
LOGISTICS DIV			2	3									1	1	11	18			43	65	3	9	61	96
PATIENT ADMIN DIV			1	2											4	6		2	40	37		1	45	46
PERSONNEL DIV			1	1											10	7			4	4			15	13
FOOD SVC DIV											3	3			3	5		1	46	43		1	52	52
PLANS OP & TNG DIV			1	1											3	5		2	1			1	5	7
MAINT DIV			2	4						2					5	8			12	10			19	24
AUXILIARY																			9	8			9	8
TEMPORARY ACTY					2	2									10	15			1	1			13	18
NEW MED ACTY			1	1					4	4					6	9	2	2	7	6			18	20
GENERAL			1	1			34	27							38	46	4	4	66	63			139	137
PERSONNEL TOTAL	43	42	28	35	2	2	34	27	61	65	6	6	2	3	267	294	83	102	465	461	3	17	*911	951

MEDDAC FORM 518 (COMPT) (REV 1 OCT 79) OTHER EDITION IS OBSOLETE

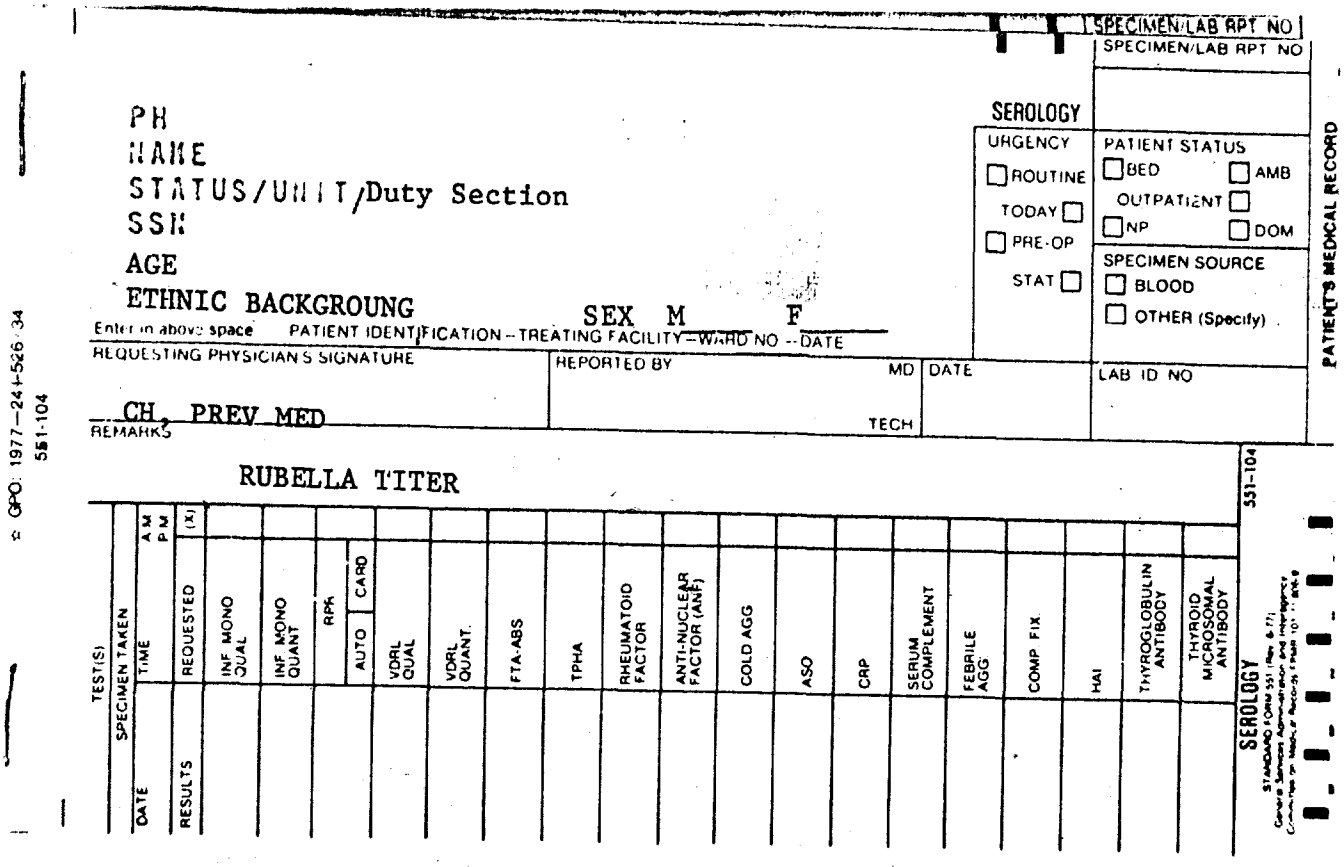
*Does not include "others"

CIV DOCTORS 8 CIV NURSES 43

CONTRACT SURGEONS 4

APPENDIX D

PREPRINTED LABORATORY SLIP FOR RUBELLA TITER



PH
NAME
STATUS/UNIT/Duty Section
SSN
AGE
ETHNIC BACKGROUNG SEX M F

SPECIMEN/LAB RPT NO
SPECIMEN/LAB RPT NO

SEROLOGY

URGENCY: ROUTINE; TODAY; PRE-OP; STAT

PATIENT STATUS: BED; AMB; OUTPATIENT; NP; DOM

SPECIMEN SOURCE: BLOOD; OTHER (Specify)

Enter in above space PATIENT IDENTIFICATION—TREATING FACILITY—WARD NO—DATE

REQUESTING PHYSICIAN'S SIGNATURE

REPORTED BY MD TECH

DATE

LAB ID NO

REMARKS CH, PREV MED

RUBELLA TITER

TEST(S)	SPECIMEN TAKEN DATE	SPECIMEN TAKEN TIME AM PM	REQUESTED (X)	RESULTS
INF MONO QUAL				
INF MONO QUANT				
RPR AUTO				
RPR CARD				
VDRL QUAL				
VDRL QUANT.				
FTA-ABS				
TPHA				
RHEUMATOID FACTOR				
ANTI-NUCLEAR FACTOR (ANF)				
COLD AGG				
ASO				
CRP				
SERUM COMPLEMENT				
FEBRILE AGG				
COMP FIX				
HAI				
THYROGLOBULIN ANTIBODY				
THYROID MICROSOMAL ANTIBODY				

SEROLOGY

PATIENT'S MEDICAL RECORD

531-104

STANDARD FORM 551 (Rev. 6-77)

GPO: 1977—241-526/34

551-104

APPENDIX E

RUBELLA REFERRAL FORM FOR MILITARY PERSONNEL

RUBELLA REFERRAL FORM FOR MILITARY PERSONNEL

Results of the rubella titer performed indicate that you are susceptible to rubella (German Measles). An immunization is required to protect yourself, other personnel and our patients. Rubella is a common childhood disease often called German Measles. It is a highly contagious disease that can cause serious fetal anomalies (blindness, deafness, heart disease, mental retardation) if a pregnant woman is infected in early pregnancy. The frequency of these anomalies is nearly 50 percent when the rubella infection occurs in the first month of pregnancy.

RUBELLA IS PREVENTABLE. The rubella screening and immunization program here at the US Army Community Hospital, Fort Carson, is designed to prevent the infection of rubella from hospital personnel to our patients.

MALE PERSONNEL should comply with paragraph number one.

FEMALE PERSONNEL should comply with paragraph number two.

1. MALE PERSONNEL should bring this form to the Acute Minor Illness Clinic for immunization.

IMMUNIZATION ADMINISTERED BY_____
NAME (Print) GRADE

DATE_____ SIGNED_____

---

2. FEMALE PERSONNEL should call the Hospital Central Appointment System for an OB/GYN appointment to cover evaluation, counseling, pregnancy test, and contraception program, as required. The Central Appointment System telephone number is 579-4040. You must bring this form for your OB/GYN appointment.

OB/GYN Physician, please complete the following:

_____,_____, was seen on_____
Patient's Name SSN # Date
and was determined to be: (Check one)

( ) Eligible for rubella immunization on_____(Date).
(Refer to Acute Minor Illness Clinic)

( ) Ineligible for rubella immunization.
(Refer this form to Chief, Preventive Medicine)

SIGNED_____

ACUTE MINOR ILLNESS CLINIC:

IMMUNIZATION ADMINISTERED BY_____
NAME (Print) GRADE

Date_____ SIGNED_____

AMIC: Return completed form to: Chief, Preventive Medicine
USACH, Fort Carson, CO

APPENDIX F

COMMANDER'S INSTRUCTIONS FOR HOSPITAL EMPLOYEE TITER TESTS

DISPOSITION FORM

For use of this form, see AR 340-15, the proponent agency is TAGCEN.

REFERENCE OR OFFICE SYMBOL	SUBJECT
	Rubella Titers for Employees of the USACH, Fort Carson

TO SEE DISTRIBUTION FROM Commander DATE CMT 1

1. References:

a. Reference MEDDAC Regulation 40-562.

b. Approval of Hospital Executive Committee.

2. MEDDAC Regulation 40-562 requires all hospital personnel to be screened for immunity against rubella. Health records of personnel assigned to your department or service have been screened for documented rubella titers. Those with documented titers are not required to have another titer test. All other personnel assigned to your department or service must be screened for rubella. Inclosure one is an alphabetical listing of those individuals identified as needing a titer test, and the dates that the laboratory has your section scheduled. Inclosure two is laboratory request slips for the titer test. Personnel should report to the USACH laboratory during duty hours.

3. Upon receipt of the evaluated titers, individual health records will be annotated. Those individuals not immune to rubella will be notified, and they will then be referred for counselling and/or immunization as appropriate.

4. Any questions on this program should be directed to Chief, Preventive Medicine Activity at extension 2267 or 2268.

CHARLES R. COCHRANE
Colonel, MC
Commanding

APPENDIX G

RUBELLA REFERRAL FORM FOR CIVILIAN EMPLOYEES

RUBELLA REFERRAL FORM FOR MALE CIVILIAN EMPLOYEES

Results of the rubella titer performed indicate that you are susceptible to rubella (German Measles). An immunization is required to protect yourself, other personnel and our patients. Rubella is a common childhood disease often called German Measles. It is a highly contagious disease that can cause serious fetal anomalies (blindness, deafness, heart disease, mental retardation), if a pregnant woman is infected in early pregnancy. The frequency of these anomalies is nearly 50 percent when the rubella infection occurs in the first month of pregnancy.

RUBELLA IS PREVENTABLE. The rubella screening and immunization program here at the US Army Community Hospital, Fort Carson, is designed to prevent the infection of rubella from hospital personnel to our patients.

Please bring this form with you to the Acute Minor Illness Clinic for immunization.

IMMUNIZATION ADMINISTERED BY_____
NAME (Print) GRADE

DATE_____ SIGNED_____

AMIC: Return completed form to: Occupational Health Nurse
Preventive Medicine Activity
USACH, Fort Carson, CO

RUBELLA REFERRAL FORM FOR FEMALE CIVILIAN EMPLOYEES

TO: Attending Physician

Ms_____is an employee of the US Army Community Hospital, Fort Carson. Current hospital policy requires all hospital employees to have a rubella titer determination and those susceptible personnel to be immunized. On _____, a serum II titer against rubella was performed and the results of the patient's titer were_____. A titer of less than 1:10 is considered non-protective and because of the inherent risk of her contracting the disease within the work environment and subsequently exposing susceptible patients, immunization is required. The immunization is available to her from this clinic or from private facilities at no expense to the government.

1. In order for the immunization to be given by this clinic, the employee must:

a. ( ) Be counselled about the importance of being protected against rubella (to prevent the rubella baby syndrome), the potential danger of becoming pregnant within three months of immunization with the live rubella virus vaccine, and the risk of exposing susceptible patients should she contract the disease.

b. ( ) Be provided with a pregnancy test and initiation of a contraception program (one month prior to rubella immunization and remain on such for three months following immunization) if clinically indicated.

c. ( ) Be assessed (in terms of contraceptive history) for eligiblity to receive rubella immunization.

2. Please fill in the information below:

a. Pregnancy test performed_____(Date).

( ) Not indicated ( ) Negative ( ) Positive

b. ( ) Patient already met criteria and received rubella immunization on

_____(Date).

c. ( ) Patient will be eligible to receive rubella immunization on

_____(Date).

d. Patient ineligible to receive rubella immunization.

_____
Physician's Signature

3. Please return this form to my office for inclosure in patient's Occupational Health Record. The form may be mailed to Commander, US Army Community Hospital, ATTN: Occupational Health Nurse, Fort Carson, Colorado 80913

Thank you for your cooperation,

Myra Cord
Occupational Health Nurse

APPENDIX H

MEDDAC REGULATION 40-562

DEPARTMENT OF THE ARMY
HEADQUARTERS, US ARMY MEDICAL DEPARTMENT ACTIVITY
FORT CARSON, COLORADO 80913

MEDDAC REGULATION
NO. 40-562

April 1981

MEDICAL SERVICES
RUBELLA SCREENING AND IMMUNIZATION PROGRAM POLICIES

1. PURPOSE. To establish policies and procedures for the management and operation of a rubella screening and immunization program for the newly assigned personnel to the US Army Community Hospital, Fort Carson, Colorado.

2. SCOPE. This directive applies to all military and civilian employees of the MEDDAC, US Army Community Hospital, Fort Carson.

3. GENERAL.

a. Military Personnel

1. The rubella screening and immunization program is mandatory for all military personnel assigned to the MEDDAC, US Army Community Hospital, Fort Carson, Colorado.

2. Rubella titers will be processed by the MEDDAC laboratory and any titer equal to or greater than 1:10 will be considered protective. Titers of less than 1:10 will be handled separately according to the sex of the individual. Male personnel with titers of less than 1:10 will be referred to the Acute Minor Illness Clinic for immunization. Appendix A is a copy of the "Rubella Referral Form For Military Personnel." Female personnel with titers of less than 1:10 will be referred to OB/GYN Clinic for evaluation, counseling, pregnancy test and contraception program. Those eligible females, only after OB/GYN has determined them eligible for immunization, will be referred to the Acute Minor Illness Clinic for immunization. Females ineligible for rubella immunization will have their referral form so marked by OB/GYN and returned to Preventive Medicine.

3. Repeat rubella titers will be given to all personnel who received an immunization. A repeat titer test will be administered 30 days after immunization.

b. Civilian Personnel

1. All new civilian employees reporting to work at the MEDDAC, US Army Community Hospital, Fort Carson, will have a rubella titer test prior to their first day of employment at the hospital. All new employees must contact the Occupational Health Clinic for an appointment for a rubella titer. Appendix B is a copy of the "Rubella Referral Form For Civilians."

2. Civilian employee rubella titers will be screened by personnel of the Hospital's Occupational Health Clinic. Titers equal to or greater than 1:10 will be considered protective. Titers of less than 1:10 will be handled separately according to the sex of the civilian employee. Male personnel will be referred to Acute Minor Illness Clinic for immunization. Female employees will be referred for proper counseling, to the Hospital OB/GYN Clinic, or if they elect, their own physician. If the employee elects to visit their own physician, the cost of the medical counseling will be borne by the invididual. Female employees will require an evaluation, counseling, pregnancy test, and contraceptive guidance, in accordance with the "Rubella Referral Form For Civilians."

4. RESPONSIBILITIES.

a. Chief, Preventive Medicine will oversee the entire program and will be responsible for providing pre-stamped laboratory forms. Results of the rubella titers will be screened by Preventive Medicine Activity.

b. Chief, Pathology Service will supervise the titer testing of US Army Community Hospital employees and will be responsible for forwarding titer results to Chief, Preventive Medicine Activity.

c. Chief, Personnel Division will insure that Pathology is included on the in-processing checklists for both military and civilian personnel and that attached to each in-processing check sheet is a pre-stamped lab form.

d. Acute Minor Illness Clinic will insure that the Rubella Referral Form For Military Personnel is completed for military personnel referred to Acute Minor Illness Clinic for immunization.

e. Occupational Health Clinic will insure that the "Rubella Referral Form for Military Personnel" is completed for civilian personnel. Occupational Health Clinic will also schedule titer appointments for new civilian employees prior to the employee's first day of work.

RUBELLA REFERRAL FORM FOR MALE CIVILIAN EMPLOYEES

Results of the rubella titer performed indicate that you are susceptible to rubella (German Measles). An immunization is required to protect yourself, other personnel and our patients. Rubella is a common childhood disease often called German Measles. It is a highly contagious disease that can cause serious fetal anomalies (blindness, deafness, heart disease, mental retardation), if a pregnant woman is infected in early pregnancy. The frequency of these anomalies is nearly 50 percent when the rubella infection occurs in the first month of pregnancy.

RUBELLA IS PREVENTABLE. The rubella screening and immunization program here at the US Army Community Hospital, Fort Carson, is designed to prevent the infection of rubella from hospital personnel to our patients.

Please bring this form with you to the Acute Minor Illness Clinic for immunization.

IMMUNIZATION ADMINISTERED BY_____
NAME (Print) GRADE

DATE_____ SIGNED_____

AMIC: Return completed form to: Occupational Health Nurse
Preventive Medicine Activity
USACH, Fort Carson, CO

RUBELLA REFERRAL FORM FOR FEMALE CIVILIAN EMPLOYEES

TO: Attending Physician

Ms_____is an employee of the US Army Community Hospital, Fort Carson. Current hospital policy requires all hospital employees to have a rubella titer determination and those susceptible personnel to be immunized. On _____, a serum II titer against rubella was performed and the results of the patient's titer were_____. A titer of less than 1:10 is considered non-protective and because of the inherent risk of her contracting the disease within the work environment and subsequently exposing susceptible patients, immunization is required. The immunization is available to her from this clinic or from private facilities at no expense to the government.

1. In order for the immunization to be given by this clinic, the employee must:

a. ( ) Be counselled about the importance of being protected against rubella (to prevent the rubella baby syndrome), the potential danger of becoming pregnant within three months of immunization with the live rubella virus vaccine, and the risk of exposing susceptible patients should she contract the disease.

b. ( ) Be provided with a pregnancy test and initiation of a contraception program (one month prior to rubella immunization and remain on such for three months following immunization) if clinically indicated.

c. ( ) Be assessed (in terms of contraceptive history) for eligiblity to receive rubella immunization.

2. Please fill in the information below:

a. Pregnancy test performed_____(Date).

( ) Not indicated ( ) Negative ( ) Positive

b. ( ) Patient already met criteria and received rubella immunization on

_____(Date).

c. ( ) Patient will be eligible to receive rubella immunization on

_____(Date).

d. Patient ineligible to receive rubella immunization.

_____
Physician's Signature

3. Please return this form to my office for inclosure in patient's Occupational Health Record. The form may be mailed to Commander, US Army Community Hospital, ATTN: Occupational Health Nurse, Fort Carson, Colorado 80913

Thank you for your cooperation,

Myra Cord
Occupational Health Nurse

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