Summarized are the outcomes of an 8-day conference held in Atlanta during April, 1973 on administrative planning for allied health occupations. A total of 86 participants from each of the eight states in Region IV, Department of Health, Education, and Welfare attended the conference. Activities included: (1) information dissemination discussions and demonstrations by key personnel in the health field, (2) reactions to the information and views of speaker representatives of education and health agencies, and (3) small group sessions in which participants could interact directly with a key representative of an agency. From the formal and informal feedback regarding the effectiveness of the conference, it appears that similar conferences in other regions should be provided. Appended are the evaluation form, a list of participants, the Conference program, and selected materials from various health organizations. (Author/SM)
CONFERENCE ON ADMINISTRATIVE PLANNING
FOR ALLIED HEALTH OCCUPATIONS

Mary Elizabeth Milliken, Ed.D.
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Conference Coordinator

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Health Occupations Teacher Education Program
Athens, Georgia
30601
The educational preparation of health workers is increasingly recognized as a function of educational institutions in cooperation with health agencies, rather than as a function of health agencies themselves. As preparatory programs for health personnel are added to the total curriculum offerings of educational institutions, the responsibility for planning these new programs is often assigned to an administrative person who does not have a health background. In such cases, lack of knowledge about agencies responsible for approving health preparatory programs can result in a program which does not qualify its graduates for the credentialing examination. Certainly, awareness of such agencies and the use of their guidelines by administrators and health program coordinators could greatly facilitate planning and implementation of a new curriculum in health occupations education.

In 1970 forty different health curriculums could be provided through vocational education. An even larger number of curriculums in health is provided in junior colleges and four-year institutions. Thus, the burgeoning health occupations curriculums have created the need to provide an opportunity for program-planners in all post-secondary institutions to interact with personnel from health agencies which approve and/or accredit educational programs designed to prepare personnel for the health field.

As a result of a growing concern about planning procedures, the Region IV Office, Bureau of Health Manpower Education, contracted with the Division of Vocational Education, University of Georgia to provide a three-day conference to bring together persons in educational administration and personnel from accrediting agencies to share information and discuss mutual concerns. This document is the
Final Report on the Conference on Administrative Planning for Allied Health Occupations held in Atlanta, Georgia, April 16-18, 1973. Presentations by the consultants and comments by panelists will be issued as Conference Proceedings.

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College of Education  
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George L. O'Kelley, Jr., Ph.D.  
Chairman  
Division of Vocational Education  
College of Education  
University of Georgia
Conference on Administrative Planning for Allied Health Occupations

The educational administrator, who is concerned about contributing to the health manpower needs of his community is confronted with numerous agencies having responsibilities for approval of programs and credentialing of graduates. In view of a growing tendency to limit credentialing examinations to graduates of approved programs and to require that approval be granted prior to the admission of students, it has become increasingly necessary that educational administrators know about policies and procedures relevant to program approval and credentialing of health personnel.

The Conference on Administrative Planning for Allied Health Occupations represents an effort to bring about interaction between representatives of two major societal institutions—education and health—which share responsibilities for meeting needs of the health field for qualified personnel.

PURPOSES

The Conference was designed to accomplish the following purposes:

1. To provide an opportunity for program-planners to become aware of the role of health agencies and professional organizations in—
   a) Providing guidelines and standards for programs to prepare health workers,
   b) Approving programs (during planning and implementation phases), and
   c) Administering credentialing examinations to graduates of approved programs;

2. To provide direct assistance to program-planners in initiating requests for program approval and in interpreting guidelines for program development;
3. To stimulate the interest of program planners in using advisory committees with extensive representation from the health community;
4. To focus attention on the use of survey data based on manpower needs for educational program planning;
5. To provide information to program-planners on current trends which have implications for health manpower training; and
6. To assist program-planners in identifying feedback procedures for program evaluation, instructional planning, placement, and follow-up.

PARTICIPANTS

Approximately four hundred announcements (Appendix A) were mailed to educational and health personnel throughout the eight states of Region IV, Department of Health, Education, and Welfare. A special effort was made to reach all types of postsecondary institutions which offer less-than-baccalaureate level programs in the health field. In addition, an effort was made to inform selected representatives of employing agencies, planning agencies, and significant persons in policy-making and/or decision-making positions in each state. State supervisors for health occupations education assisted by identifying key persons who should be invited to the Conference.

Preconference response to the announcements was highly enthusiastic. In addition to preregistration applications from eighty persons, there were numerous phone calls and letters regarding the Conference. Interestingly, a number of persons who preregistered but were prevented from attending by later circumstances sent a substitute in order to have their agencies represented. Certainly the enthusiastic response is indicative of widespread recognition that the Conference addressed an important problem area.

A total of 86 participants attended; each of the eight states in Region IV was represented. A list of participants is provided in Appendix B.
PROGRAM

The program for the Conference on Administrative Planning for Allied Health Occupations (Appendix C) was designed to provide three types of formal activities:

1. information dissemination by key personnel representing the health field;

2. reactions to the information and views of the speakers by representatives of education and health agencies;

3. small group sessions in which participants could interact directly with a key representative of an agency with program-approval and/or worker-credentialing responsibilities for a specific job in the health field.

Keynote speakers represented state-level planning, federal-level planning, and the project approach to developing guidelines for new and emerging jobs in the health field (state-federal level planning). These speakers served secondarily as resource people, in addition to their formal presentations. Representatives of the Council on Education of the American Medical Association, Council on Dental Education of the American Dental Association, and a state supervisor for Emergency Medical Technician-Ambulance served as presentors and as resource persons for the small group sessions. Panelists who reacted to the presentations represented employers of health personnel (a hospital administrator, a nursing home director and a supervisor in a federal health agency); educational planners at the local level (coordinator of health occupations education, dean of instruction in a junior college, local director of occupational education for a school system); and state supervision (supervisor for health occupations education).

The emphasis on interaction between the educational agency and the health agency in regard to program approval and credentialing of graduates was followed by presentations on processes for effective planning for health occupations education. These presentations were devoted to such topics as proficiency testing for advanced placement.
and/or credentialing, utilization of military personnel in health agency settings, using manpower data for program-planning, and the value of local surveys and advisory committees for studying local needs for health occupations education programs. The program concluded with a panel of representatives from the American Medical Association and the American Dental Association explaining the procedures used to develop the Guidelines and Essentials for each program in health. This presentation served to re-emphasize inter-agency and interdisciplinary involvement in planning, implementing, and evaluating educational programs to prepare personnel to function in the health field.

Group sessions were planned for discussing specific jobs in the health field, in accordance with interests expressed on the pre-registration form. The jobs selected for group discussion may be somewhat representative of the current trends and/or current manpower needs for the health field in the Southeast. These jobs were operating room technician, nuclear medicine technician, radiologic technologist, emergency medical technician--ambulance, medical laboratory assistant, medical assistant, histologic technician, respiratory therapist, dental assistant, dental hygienist, and dental laboratory technician.

Information given by the consultants and panelists was supplemented by printed materials from health professional organizations. A list of these organizations and the materials they provided is provided in Appendix D. Thus, participants were exposed to a variety of stimulating presentations, were given opportunities to interact with key persons, and were given printed materials as a nucleus for building a reference file of guidelines for planning, implementing, and evaluating health occupations education programs. Selected examples of such materials are shown in Appendix D.

EVALUATION

A subjective and general evaluation of the Conference as a whole would have to be that it was extremely well received by all...
participants. The overall atmosphere of the Conference was remarkable for the degree of enthusiasm and positive attitudes expressed. This indication of Conference effectiveness was substantiated by analysis of Conference evaluation forms.

Formal evaluation of the Conference is based on twenty-seven forms submitted by participants following adjournment. (Unfortunately, a number of participants found it necessary to leave before the evaluation forms were distributed.) The evaluation form (Appendix A) was purposely kept simple in the hope that participants would respond to every question. To some degree the form did have this effect.

Item one provided an opportunity for participants to give their overall reactions to the Conference in one of three terms: "Effective," "So-so," "Ineffective." Twenty-two respondents rated the Conference "Effective;" three rated the Conference "So-so;" no respondent rated the Conference "Ineffective."

Item number two elicited a "yes" or "no" response to three questions. Responses were as follows:

<table>
<thead>
<tr>
<th></th>
<th>YES</th>
<th>NO</th>
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</thead>
<tbody>
<tr>
<td>A. Your knowledge about guidelines for planning new curriculum programs in allied health occupations?</td>
<td>25</td>
<td>1</td>
</tr>
<tr>
<td>B. Your understanding or procedures for seeking approval for a new curriculum program in allied health occupations?</td>
<td>22</td>
<td>3</td>
</tr>
<tr>
<td>C. Your awareness of &quot;appropriate others&quot; to involve in planning a new curriculum in allied health occupations education?</td>
<td>25</td>
<td>0</td>
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</tbody>
</table>

The third item elicited feelings of participants regarding the most helpful activities of the Conference. The following were listed by one or more participants as being the most helpful activities of the Conference:

- Afternoon workgroups;
- Information about what is going on in the field allied to my own;
- Variation of speakers covering the various allied health careers;
- Presentations from such a fine cross-section of speakers; the emphasis came through from each, albeit differently. We should leave with better defined goals in planning, aware of problems, prepared to probe them and perhaps to solve them;
Address by Helen Powers;
Address by Wilson Morgan;
Address by Helen Powers;
Address by Wilson Morgan—CHP emphasis;
Specialized session on those topics most pertinent to my program;
Speakers of group sessions were excellent—written essentials from the various national agencies should probably have been available and passed out to conference participants on a greater number of allied health programs than just those listed;
Planning process and the ideas covering the process;
Opportunity for one-to-one conferences with the varied level participants;
Speakers, group discussion, direct conversation with others;
Variety of experts;
Morning sessions;
Sources of information for manpower needs listed Wednesday morning; afternoon sessions with field representatives; emphasis on importance and methods of planning; I think this has perhaps been of greatest benefit to me;
Panel discussions—group sessions;
Speakers and resource people;
The presentations; "Data Base for Program-Planning" one of the best; most helpful in approach for getting information;
All presentations were good, some exceptional; the overview given by group consultants help to clarify areas not brought out in group work;
The presentations were very good; some excellent. I would have liked to hear other points from Miss Powers; her presentations were excellent;
Discussing guidelines and procedures for establishing programs in allied health occupations. Material obtained was good;
Small group presentations on specific allied health careers;
Overview of health occupations education in other states; Billie Kerr was especially effective; talking to representatives of certification agencies; Peg Ryan outstanding;
The afternoon sessions and the "buzz" sessions with the others attending the conference;

Group sessions where information about individual programs was made available;

Group sessions; speakers (I feel fortunate to have heard all of them); some of the comments by members of the reaction panels. It has been most helpful to learn of all the help and information which is available.

Item number four elicited from participants their feelings regarding the least helpful activities of the conference. The following were listed:

Discussions centering around basic data approaches to planning;

I am not involved in the specific technologies;

P.H. resource people lacked pass-out information, but this will be mailed to us;

Group meetings;

No information on BHME funding;

The topic "Serving Community Needs -- Strategies and Procedures" wasn't even discussed. I felt the panels were very useful and very interesting;

Afternoon panels--the person conducting sessions were limited in materials they could share and answers they could give;

Suggest each group leader have more information or at least aware of group members who have information needed by the group;

Failure to begin meetings on time and hold a schedule;

Several speakers seemed unclear as to what their presentations should include and spent their time advertising their respective agencies. Would have been more helpful had they discussed how they plan rather than what they plan;

Danish pastries--too many calories;

Group sessions in the afternoon;

Group sessions;

The afternoon activities;

All activities real helpful, I cannot identify the least helpful;
With tighter scheduling I believe the material presented could have been done in less time;

None;

No outstanding deficiencies; very useful conference;

Discussion of terminology by Dr. Ball; maybe it was due to the lateness for lunch. Other sessions with him were most productive;

Comments by some of the reaction panel members.

Item five asked for recommendations for future conferences. The following suggestions were submitted:

Opportunities for a little more open discussion and questions from the floor;

Development of consortium for Health Occupations Education, I am not a planner for allied health occupations education;

More in-depth study of various careers;

To take the hint for planning given to us we might keep in mind the need to articulate this data in the light of what needs to be considered after one more year in the field;

Decision-making based on data;

Limitations on program implementation;

More of the same;

Innovations in teaching allied health programs--core, cluster, mini-units, etc.; a top-notch group would be welcome;

Some useful charts, graphs, etc., sharing needs and the long-range implementation of such. What impact will surrounding areas have on need for a certain program? Do we not look short-range? Why don't we look at long-range planning? Why not consider "impact areas" rather than a given community or target areas? What about dual role planning toward implementation (e.g. LPN training and this individual also be trained in EKG reading and/or taking)? What about problem-solving approach to define or determine needs?

Curriculum comparison and analysis sessions in respect to local, state, national evaluation;
Conferences involving different levels of education--secondary, postsecondary, vocational, A.D. and B.S. who produce health occupations workers; participants should include employers of the health workers;

Trends in health occupations;

Perhaps a breakdown into groups of instructors, directors, supervisors with leadership provided to discuss how each person can function most effectively in his area of involvement to plan for future programs as well as to plan around existing programs;

Perhaps more workshop emphasis for greater involvement of participants;

Information for programs using core concept, advantages, disadvantages; involve "senior college" people so that we have better communication for career mobility;

Need more audience questioning time;

More specific information concerning collection of data; curriculum development; new trends; use of new teaching media;

All administrators of allied health occupations programs should be invited. Hospital trustees or hospital board of control members from both public and private hospitals should be invited. Many allied health occupations are still conducted in hospitals and the trustees have the final say on these budgeted positions;

Sources of funds--federal, state associations, industry, etc.;

Student organizations; overview of secondary programs throughout the nation; health occupations education's role in career education. Note--we suffer from a lack of communication. How about somehow establishing a national organization for health occupations education instructors plus a newsletter?

Comparison of organization make-up of various state systems; discussion of health occupations teacher education programs; role of the vocational technical programs in developing associate degree programs in allied health; what is the possibility of establishing a national health occupations education teachers organization? Communication is poor nationally and we need a national forum!

One respondent chose to write a summary evaluation rather than respond to the items
"I think it is always great when there is an opportunity for people of a certain area to get together to consider problems and possible solutions. This conference provided that kind of opportunity. I regret I was unable to attend more of the sessions. I was somewhat disappointed with Dr. Kerr's presentation--more preparation would have helped us as she is a knowledgeable person in her field. The other presentations I heard were for the most part satisfactory."

As might be expected, each participant perceived segments of the program in his/her own way, probably in accordance with the primary concerns of each individual. In view of the above responses, it would appear safe to conclude that this was essentially a successful conference in the eyes of the participants. Certainly there is no question that approximately seventy-five persons in positions related to educational planning now possess a large store of information which they can use in the planning process. Also, there is now widespread awareness of the role of certain agencies in assisting local and state personnel with program-planning and program-approval procedures.

SUMMARY AND CONCLUSIONS

In view of certain formal and informal feedback regarding the effectiveness of this conference, it appears that similar conferences in other regions should be provided. If the reactions of these participants can be viewed as indicative of the needs of educational personnel in general, then certainly a replication of this conference or the provision of similar conferences in each of the regions could be justified.

Certainly, it is desirable--possibly essential--that there be in each state at least one person who is knowledgeable about health agencies and the educational system, in order to provide liaison services at the state level and serve as consultant to local communities as they plan for expanded health occupations programs. Without such a person there is a risk of programs being initiated without proper contacts and without the procedures which guarantee
that graduates will be eligible for certifying examinations. This type of problem can be prevented by state-level planning and provision for liaison and/or consultant services to local systems as new health curriculums are considered.

Hopefully, the Conference on Administrative Planning for Allied Health Occupations has provided assistance to a large number of persons. The Conference, however, cannot be deemed as a substitute for continuous availability of consultant services within each state of the Region.
APPENDIX A

Announcement

Evaluation Form
Health Occupations Education Programs which can be funded through Vocational Education:

- Dental assisting
- Dental hygiene
- Dental laboratory technology
- Cytology
- Histology
- Medical laboratory assisting
- Hematology
- Nursing
- Practical nursing
- Nursing assistant
- Psychiatric aide
- Surgical technician
- Obstetric technician
- Home health aide
- School health aide
- Occupational therapy
- Physical therapy
- Prosthetics
- Orthotics
- Radiological technology
- Radiation therapy
- Nuclear medicine technology
- Ophthalmic dispensing
- Optometry
- Optometric assistant
- Environmental health assistant
- Radiological health technician
- Sanitarian's assistant
- Mental health technician
- Mental retardation aide
- Electroencephalographic technician
- Electrocardiographic technician
- Inhalation therapy
- Medical assistant
- Central service technician
- Community health aide
- Medical emergency technician
- Food service supervisor
- Mortuary science
- Orthopedic assisting
CONFERENCE FOCUS

DO YOU HAVE ALL THE ANSWERS?

April 16, 8:30 A.M.
Opening Session

April 17, 8:30 A.M.
Conference Focus

Plenary Session 1: Introduction to the Local Level

Program: Developing the Health Care System... Learn about procedures for population health education... Learn about criteria for meeting effective community... Learn about health criteria for meeting effective community... Learn about health criteria for meeting effective community...

THE TOPIC

WHAT DO YOU THINK?

IF YOU DON'T KNOW THE ANSWER, JOIN US AND

We'll help you develop the answers you need.

- Are the community health education programs effective?
- Are the community health education programs effective?
- Are the community health education programs effective?
- Are the community health education programs effective?
- Are the community health education programs effective?
- Are the community health education programs effective?

Mary Ellen Allman, Ed.D.
Program Director

April 17, 10:00 A.M.
Plenary Session 2: Developing Community Programs for Health Education...
CONFERENCE EVALUATION

PLEASE CIRCLE ONE RESPONSE:

1. My overall reaction is that the Conference was:
   Effective       So-So       Ineffective

2. Did you think that the Conference has made a significant contribution to -
   a. Your knowledge about guidelines for planning new curriculum programs in allied health occupations? Yes  No
   b. Your understanding of procedures for seeking approval for a new curriculum program in allied health occupations? Yes  No
   c. Your awareness of "appropriate others" to involve in planning a new curriculum in allied health occupations education? Yes  No

PLEASE GIVE YOUR THOUGHTS AND/OR FEELINGS IN REGARD TO -

3. The most helpful activities of the conference:

4. The least helpful activities of the conference:

5. Recommendations for future conferences (specifically, your needs as a planner for allied health occupations education):

THANK YOU FOR RESPONDING.
HAVE A SAFE TRIP HOME.
APPENDIX B

List of Participants
CONFERENCE ON ADMINISTRATIVE PLANNING
FOR ALLIED HEALTH OCCUPATIONS

CONFERENCE PARTICIPANTS

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APPENDIX C

Conference Program
CONFERENCE ON
ADMINISTRATIVE PLANNING
FOR
ALLIED HEALTH OCCUPATIONS

April 15, 16, 17, 18, 1973
Atlanta Cabana Motor Hotel
Atlanta, Georgia

Mary Elizabeth Milliken, Ed.D.
Project Director

Health Occupations Teacher Education Program
Division of Vocational Education
College of Education
University of Georgia

for

Region IV
Bureau of Health Education Manpower
National Institutes of Health
Department of Health, Education, and Welfare
REGISTRATION: Sunday 4:00 - 7:00 p.m., Lobby
        Monday 8:00 - 12:00 N, Castilian Foyer

MONDAY MORNING

8:30  Presiding
      Mary Elizabeth Milliken
      Welcome
      George L. O'Kelley, Jr.
      Introductions

9:00 - 9:45 Responsibilities for Program-Planning at the Local Level
      Joe D. Mills

9:45 - 10:15 Reaction Panel
      Local Coordinator, Health Occupations Education,
      Betty McCrery
      Junior College Dean of Instruction,
      Harold Olsen
      State Supervisor for Health Occupations,
      Julie Cave
      Local Director, James F. Clark

10:15 - 10:45 Refreshment Break, Castilian Foyer

10:45 - 11:30 Potential Scope of the Health Occupations Education Program
            Helen K. Powers

11:30 Solving the Riddle of Health Job Titles
        Warren G. Ball
MONDAY AFTERNOON

1:30 - 3:00
Program-planning Group Session #1
Operating Room Technician
John J. Fauser
Nuclear Medicine Technician
Radiologic Technologist
Warren G. Ball
Emergency Medical Technician-Ambulance
Phil Petty

3:00 - 4:30
Program-planning Group Session #2
Medical Laboratory Assistant
Warren G. Ball
Medical Assistant
John J. Fauser
Emergency Medical Technician-Ambulance
Phil Petty
TUESDAY MORNING

Presiding
Johnny W. Browne

8:30 - 8:45 Announcements

8:45 - 9:45 Coordinated Planning: Mutual Concern of Educators and Health Professionals
Elizabeth Kerr

9:45 - 10:30 Reaction Panel
Hospital Administrator: Joe Taylor
Health Occupations Education Coordinator: Keith Johnson
Nursing Home Director: Bill Barrett
Supervisor - Health Agency Setting: M. M. Brooke

10:30 - 10:45 Refreshment Break, Castilian Foyer

10:45 - 12:00 Current Trends in Allied Health Occupations
Proficiency Testing: Dennis Carringer
Utilization of Military Personnel in the Health Field: Jimmie McLeod

NOON LUNCHEON BREAK
<table>
<thead>
<tr>
<th>TIME</th>
<th>GROUP SESSION</th>
<th>ATTENDEES</th>
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<tbody>
<tr>
<td>1:30 - 3:00</td>
<td>Program-planning Group Session #3</td>
<td>Dental Assistant: Margaret Ryan</td>
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<td>Histologic Technician: John J. Fauser</td>
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<td></td>
<td>Medical Laboratory Assistant: Warren G. Ball</td>
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<tr>
<td>3:00 - 4:30</td>
<td>Program-planning Group Session #4</td>
<td>Medical Assistant: John J. Fauser</td>
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<td></td>
<td></td>
<td>Respiratory Therapy Aide: Warren G. Ball</td>
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<td>Dental Hygienist:</td>
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<td>Dental Laboratory Technologist: Margaret Ryan</td>
</tr>
</tbody>
</table>
WEDNESDAY MORNING

8:30 - 8:45  
Announcements

8:45 - 10:15  
The Data Base for Program Planning
Collecting and Interpreting Manpower Data in the Health Field

          Wilson Morgan
Surveying Community Needs - Strategies and Procedures

          George Hardy

10:15 - 10:45  
Refreshment Break, Castilian Foyer

10:45 - 11:30  
Panel: Procedures for Establishing Essentials, Guidelines, and Standards

          Dr. Ball, Dr. Fauser, Ms. Ryan

11:30 - 12:00  
Questions and Answers

Conference Evaluation

12:00 - 12:30  
Summary

          Dr. James Lovett

12:30  
ADJOURN
SPEAKERS

Warren G. Ball, D.D.S.
Assistant Director
Department of Allied Medical Professions and Services
Council on Medical Education
American Medical Association
535 North Dearborn Street
Chicago, Illinois 60610

Johnny W. Browne, Deputy Director
Bureau of Health Manpower Education, NIH, Region IV, DHEW
50 Seventh Street, N.E.
Atlanta, Georgia 30323

Dennis Carringer, Ph.D.
Test Development Specialist
Georgia MEDIHC Program
Medical College of Georgia
Augusta, Georgia 30602

John J. Fauser, Ph.D.
Assistant Director
Department of Allied Medical Professions and Services
Council on Medical Education
American Medical Association
535 North Dearborn Street
Chicago, Illinois 60610

George Hardy, Director
Augusta Area Vocational Technical School
2025 Lumpkin Road
Augusta, Georgia 30906

Elizabeth Kerr, State Consultant
Health Occupations Education
MARA Building, 135 Melrose Avenue
Iowa City, Iowa 52240

Dr. James Lovett, Associate Director
Bureau of Health Manpower Education-
NIH, Region IV, DHEW
50 Seventh Street, N.E.
Atlanta, Georgia 30323

Jimmie McLeod, State MEDIHC Coordinator
Registrar's Office
Medical College of Georgia
Augusta, Georgia 30902

Joe D. Mills
State Director of Vocational Education
Division of Vocational, Technical and Adult Education
Knott Building
Tallahassee, Florida 32304

Wilson Morgan, Manpower Advisor
Office of Comprehensive Health Planning
1280 West Peachtree Street, N.W.
Atlanta, Georgia 30309

George L. O'Kelley, Jr., Chairman
Division of Vocational Education
College of Education
University of Georgia
Athens, Georgia 30602

Ms. Helen K. Powers, Program Officer
Health Occupations Education
Bureau of Adult, Vocational and Technical Education-OE-DHEW
Seventh and D Streets, S.W.
Washington, D.C. 20202

Margaret Ryan, Assistant Secretary
Council on Education
American Dental Association
211 East Chicago Avenue
Chicago, Illinois 60611
CONFERENCE ON ADMINISTRATIVE PLANNING
FOR ALLIED HEALTH OCCUPATIONS

MEMBERS OF REACTION PANELS

Dr. M. M. Brooke
Laboratory Division
Center for Disease Control
Atlanta, Georgia 30333

Julie Cave, Supervisor
Health Occupations Education
State Office Building
Fifth Floor
Frankfort, Kentucky 40601

James F. Clark, Director
Occupational and Career Education
DeKalb County School System
DeKalb County Courthouse
Room 702
Decatur, Georgia 30030

Keith Johnson, Coordinator
Allied Medical Careers
Athens Area Vocational Technical School
U.S. Hwy. 29, N
Athens, Georgia 30601

Betty C. McCrary
Extension Coordinator
Health Occupations Programs
Rowan Technical Institute
P.O. Box 1555
Salisbury, North Carolina 28144

Harold P. Olsen
Director of Occupational Education Programs
Western Piedmont Community College
Morganton, North Carolina 28655

Joe Taylor
Northside Hospital
1000 Johnson Ferry Road, N.E.
Atlanta, Georgia 30302

William Barrett, Director
Heritage Nursing and Convalescent Center, Inc.
960 Hawthorne Avenue
Athens, Georgia 30601

Phil Petty, Coordinator
EMT and Ambulance Programs
Division of Adult, Vocational and Technical Education
State Department of Education
State Office Building
Atlanta, Georgia
APPENDIX D

Health Organizations
(Printed Material)

Selected Materials for
Reference File
ORGANIZATION AND MATERIALS

Accrediting Bureau of Medical Laboratory Schools
3038 West Lexington Avenue
Oak Manor Offices
Elkhart, Indiana 46514

Accredited Medical Assistant Schools, 1973 (Pamphlet)
Accredited Medical Laboratory Schools, 1973 (Pamphlet)
Manual of the Accrediting Bureau of Medical Laboratory Schools
7th Edition
Manual of the Accrediting Bureau of Medical Laboratory Schools
for Medical Assistant Education (2nd Edition)
Self-Evaluation Report, Form 2-B, Medical Assistant

American Association of Medical Assistants
1 East Wacker Drive Suite 1510
Chicago, Illinois 60601

A Fascinating, Rewarding Career; Medical Assistant

Essentials of an Approved Educational Program for Medical Assistants "Fact Sheet"

American Association of Ophthalmology
1100 17th Street N.W
Washington DC 20006

Announcing the American Association of Ophthalmology's Home Study Courses for Ophthalmic Medical Assistants (Pamphlet)

"Careers in Ophthalmoiy and Eye Surgery" Cole, Helen G.
Journal of the American Medical Women's Association, 20:483-486,
May 1965 'Reprint'

Literature Order Form

Occupational Guidance Ophthalmologist (Information sheet)

"Ophthalmology as a Career" Clark, H F Resident Physician,
March 1962 'Reprint'
American Association of Ophthalmology

"Ophthalmology as a Vocation." Falls, Harold F. The New Physician, March 1959

Optical Techniques. Manchester, P.; McCord, C. (Home study course supplemental booklet) $3.00

Science Research Associates Occupational Brief, No. 146; Ophthalmologist

American Dietetic Association
620 North Michigan Avenue
Chicago, Illinois 60611

Publications and Reprints

The Dietetic Assistant, Facts for Educators

The Dietetic Supportive Personnel, Fact Sheet for Students

The Dietetic Technician, Facts for Educators

American Medical Association
535 North Dearborn Street
Chicago, Illinois 60610

Allied Medical Education Fact Sheet

Allied Medical Education Newsletter

American Medical Technologists Association
710 Higgins Road
Park Ridge, Illinois 60068

American Medical Technologists Student Flyer (Bulletin)

Answers to your Questions about an Exciting Career in Medical Technology (Pamphlet)

Application for Scholarship (Form)

Medical Technology - Your Service Career - Your Civilian Career; Prepared for Armed Forces Personnel by the American Medical Technologists Association (Pamphlet)

Opportunities Unlimited: Your Career Ladder in Medical Technology (Pamphlet)

Science Products Foundation Scholarship Application (Form)
American Medical Technologists Association
Standards, Programs, Awards (Pamphlet)

Standards and Qualifications for Registration; A Career Ladder for Medical Laboratory Personnel (Pamphlet)

American Optometric Association
7000 Chippewa Street
St. Louis, Missouri 63119

Paraoptometrics Personnel Educational Programs (Listing)
The Paraoptometrics; A New Frontier in the Health Care Field (Pamphlet)

American Occupational Therapy Association, Inc.
6000 Executive Boulevard
Rockville, Maryland 20852

American Occupational Therapy Organizations; American Occupational Therapy Association, Inc. and American Occupational Therapy Foundation, Inc., and their functions (Fact sheet)
Educating the Occupational Therapy Assistant, A Guide, History (Currently being revised)
Function of Occupational Therapy Assistants (Information pamphlet)
Occupational Therapy Educational Programs (Listing)
Occupational Therapy Handbook
Occupational Therapy: Its Definition and Functions (Pamphlet)

American Physical Therapy Association
1156 15th Street, N.W.
Washington, D.C.

Development of Standards for Basic Education in Physical Therapy-A History (Information sheet)
Guidelines for Physical Therapist Assistant Programs
Guidelines for Physical Therapy Aide Training
Process Guidelines: Suggested Components of Programs of Professional Education in Physical Therapy (Information document)
Standards for Basic Education in Physical Therapy (Pamphlet)
American Physical Therapy Association

What is Physical Therapy? (Information sheet)

American Society of Electroencephalographic Technologists
c/o Lila Snodgrass, R. EEG T.
Division of EEG
Department of Psychiatry
University of Iowa
Iowa City, Iowa 52240

A Career in EEG Technology (Pamphlet)

Insert for: A Career in EEG Technology (Program Listing)

American Society of Medical Technologists
Suite 1600
Hermann Professional Building
Houston, Texas 77025

Approved Educational Programs for the Certified Laboratory Assistant, 1971 (Booklet)

Approved Educational Programs for Medical Technology, 1971 (Booklet)

Approved Educational Programs for the Cytotechnologist, 1971 (Booklet)

Code of Ethics for the Medical Technologist

Essentials for an Accredited School for Histologic Technicians, 1970

Essentials for an Accredited School for Medical Laboratory Technicians, 1971

The Registry of Medical Technologists of the American Society of Clinical Pathologists (Information Sheet)

What Kind of Career Could I have in a Medical Laboratory? (Booklet)

Joint Commission on Allied Health Personnel in Ophthalmology
1575 University Avenue
St. Paul, Minnesota 55104

Career in Medicine, Ophthalmic Medical Assistants (Pamphlet)
National Association of Hearing and Speech Agencies
191 18th Street, N.W.
Washington, D.C. 20006


National Association of Human Services Technologies
(formerly The National Association of Psychiatric Technicians)
11th and L Bldg., Main Floor
Sacramento, California 95814

Announcement, The Academy of Human Service Sciences

ESPRIT. (Newsletter, NAHST) n/c to members, $2.50 annually to non-members

Goals of N.A.H.S.T. (Information sheet)

Proposal for an Associate of Arts Degree Curriculum in Psychiatric Technology, California Society of Psychiatric Technicians, A Program to Train Middle-level Professionals in Mental Health. Fuzessery, Zoltan, March 1969 (Paper)

The Psychiatric Technician . . . (Pamphlet)

The Psychiatric Technician, An Outline of his Work and Capa-
bilities. (Reprint)

The Psychiatric Technician: Past, Present and Future (Pamphlet)

What is NAPT? (Pamphlet)

National Committee for Careers in the Medical Laboratory
9650 Rockville Pike
Bethesda, Maryland 20014

Approved Educational Programs for Certified Laboratory Assistants, 1971 (Booklet)

Approved Educational Programs for Cytotechnologists, 1971 (Booklet)

Associate Degree Medical Laboratory Technician Programs, 1972 (Booklet)

Approved Educational Programs for Medical Technologists, 1971 (Booklet)

Bulletin of Information (Newsletter)

Fact Sheet: A Manual of Cytotechnology, 1973
National Committee for Careers in the Medical Laboratory

Fact Sheet on Salaries in Medical Laboratory, 1973

GIST, Newsletter Relating to the Medical Laboratory

List of Publications and Films compiled by the National Committee for Careers in the Medical Laboratory

National Council for Homemaker-Home Health Aide Services, Inc.
67 Irving Place
New York, New York 10003

Help at Home in Personal Care and Rehabilitation (Pamphlet)

Publications and Visual Aide List

Whereas... (Pamphlet)

National Executive Housekeepers Association, Inc.
Business and Professional Bldg.
Second Avenue
Gallipolis, Ohio 45631

Wanted: An Executive Housekeeping Know-it-all (Pamphlet)

1972 Certification Program (320 Hour Educational Program for Certification Membership)

Public Affairs Pamphlets
381 Park Avenue, South
New York, New York 10016

Wanted: Medical Technologists; Pamphlet # 442

Registry EMT-Ambulance Technicians
P.O. Box 29233
1795 East Granville Road
Columbus, Ohio 43229

Entry Requirements for EMT-Ambulance Programs

Registry Emergency Medical Technician-Ambulance (Information pamphlet)

Registry of Medical Technologists of the American Society of Clinical Pathologists
P.O. Box 4872
Chicago, Illinois 60680

Fact Sheet: Careers in the Medical Laboratory

Medical Laboratory: Careers with a Future (Pamphlet)
The Essentials for an Approved Educational Program for Medical Technologists, Adopted Board of Schools, 2/5/72

The Essentials of Approved Schools for Medical Laboratory Technicians with Guidelines, 1972

The Human Cell and the Cytotechnologist, Film (Pamphlet)

The Registry of Medical Technologists of the American Society of Clinical Pathologists (Information pamphlet)

Scholarships and Loans for Medical Laboratory Study (Information sheet)
Medical assistants are usually employed in physicians' offices where they perform a variety of administrative and clinical tasks to facilitate the work of doctors. Some, however, work in hospitals and clinics, and although most medical assistants are women some men also are numbered in their ranks.

Medical assistants have a wide range of duties in many aspects of the physician's practice. Their administrative duties include scheduling and receiving patients; obtaining patients' data; maintaining medical records; handling telephone calls, correspondence, reports and manuscripts; purchasing and maintaining supplies and equipment; and assuming responsibility for insurance matters, office accounts, fees and collections and office care. In offices with two or more medical assistants, one will act as a supervisor, with responsibility for personnel and office management. Their medical duties include assisting with examinations and treatments; performing certain diagnostic tests; carrying out those laboratory procedures that can be done in a physician's office; and sterilizing instruments and equipment.

The demand for qualified medical assistants is high and is expected to grow in the future. Salaries vary widely from community to community and from one geographic area to another. Generally, the medical assistant receives a starting salary on a par with that paid in the community to secretaries and office workers having comparable skills. Job security is excellent and working conditions are pleasant.

The Council of Medical Education of the American Medical Association and the American Association of Medical Assistants collaborates in determining minimal educational standards, termed Essentials, for programs for medical assistants. The Council on Medical Education grants formal approval to educational programs which meet or exceed the agreed upon standards. Lists of AMA-approved programs are available from the Department of Allied Medical Professions and Services of the American Medical Association.
Dietetic manpower needs and the shifting social structure are among the factors which demand a change in the role of the dietitian and underscore the crucial requirement for additional educated dietetic personnel.

The American Dietetic Association has identified two categories of supportive personnel in the field of dietetics: dietetic assistants and dietetic technicians.

<table>
<thead>
<tr>
<th>CLASSIFICATION</th>
<th>FUNCTION</th>
<th>QUALIFICATIONS</th>
</tr>
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<tbody>
<tr>
<td>Dietetic Technician</td>
<td>Under the supervision of a dietitian, or an administrator and a consulting dietitian, he assists in providing and assessing food service management or nutritional care services.</td>
<td>He is a skilled worker in food service management or nutritional care who has successfully completed an associate degree program for dietetic technicians which meets the standards established by The American Dietetic Association.</td>
</tr>
<tr>
<td>Dietetic Assistant *</td>
<td>Under the close supervision of a dietetic technician, or a dietitian, or an administrator and a consulting dietitian, and through assigned tasks, he participates in providing food service supervision and nutritional care services.</td>
<td>He is a high school graduate (or equivalent) who has successfully completed a course in food service supervision and nutritional care which meets the standards established by The American Dietetic Association.</td>
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</tbody>
</table>

*This generic term includes the title, food service supervisor.

ADA STANDARDS FOR SUPPORTIVE PERSONNEL PROGRAMS
(Order via "Publications & Reprints")

- Dietetic Technician Program - ESSENTIALS OF AN ACCEPTABLE PROGRAM OF DIETETIC TECHNICIAN EDUCATION
- Dietetic Assistant Program - Manual for the Education of the Food Service Supervisor: Part I and Part II

For further information regarding -
- the chief activities of the dietetic technician or dietetic assistant
- procedure for reviewing and approving dietetic technician or dietetic assistant programs
- schools which offer dietetic technician or dietetic assistant programs
- write (address above) or call (person-to-person) the Coordinator, Education of Supportive Personnel
The American Dietetic Association
620 North Michigan Avenue, Chicago, Illinois 60611
Telephone: 312/664-0143

Dietetic Supportive Personnel
Fact Sheet for Students

Dietetic manpower needs and the shifting social structure are among the factors which demand a change in the role of the dietitian and underscore the crucial need for additional educated dietetic personnel.

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**Recommended Classification, Function, and Qualifications for Supportive Personnel in the Field of Dietetics**

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*This generic term includes the title, food service supervisor.

For further information regarding:

- the chief activities of the dietetic technician or dietetic assistant
- ADA standards for dietetic technician or dietetic assistant programs
- ADA approval of dietetic technician or dietetic assistant programs
- schools in specific state(s) which offer dietetic technician or dietetic assistant programs

Write to the Coordinator, Education of Supportive Personnel (address above)
AMERICAN OCCUPATIONAL THERAPY ASSOCIATION

Occupational Therapy: Its Definition and Functions

Occupational therapy is the art and science of directing man's participation in selected tasks to restore, reinforce and enhance performance, facilitate learning of those skills and functions essential for adaptation and productivity, diminish or correct pathology and to promote and maintain health. Its fundamental concern is the development and maintenance of the capacity, throughout the life span, to perform with satisfaction to self and others those tasks and roles essential to productive living and to the mastery of self and the environment.

Since the primary focus of occupational therapy is the development of adaptive skills and performance capacity, its concern is with factors which serve as barriers or impediments to the individual's ability to function, as well as those factors which promote, influence or enhance performance.

Occupational therapy provides service to those individuals whose abilities to cope with tasks of living are threatened or impaired by developmental deficits, the aging process, poverty and cultural differences, physical injury or illness, or psychologic and social disability.

Reference to occupation in the title is in the context of man's goal-directed use of time, energy, interest and attention.

The practice of occupational therapy is based upon concepts which acknowledge that:

Activities are primary agents for learning and development and an essential source of satisfaction.

In engaging in activities, the individual explores the nature of his interests, needs, capacities and limitations; develops motor, perceptual and cognitive skills; learns a range of interpersonal and social attitudes and behaviors sufficient for coping with life tasks and mastering elements of his environment.

Task occupation is an integral part of human development - it represents or reflects life-work situations and is thus a vehicle for acquiring or redeveloping those skills essential to the fulfillment of life roles.
When activities match or are related to the developmental needs and interests of the individual, these activities not only afford the necessary learning for development or restoration, but provide an intrinsic gratification which promotes and sustains health and evokes a strong investment in the restorative process.

The end product inherent in a task or an activity provides concrete evidence of the ability to be productive and to have an influence on one's environment.

Activities "are doing" and such focus upon productivity and participation teaches a sense of self as a contributing participant rather than recipient.

These principles are applied in practice through programs reflecting the profession's commitment to comprehensive health care. These programs are:

Prevention and Health Maintenance Programs which have as their purpose: The fostering of normal development, sustaining and protecting existing functions and abilities, preventing disability and/or supporting levels of restoration or change. The central concern is provision of activity experiences which enable the individual to use productively his existing skills, capacities and strengths; those which provide personal gratification and meet the basic human needs of man for acceptance, achievement, creativity, decision-making, autonomy, self-assertion and social relationships; those which provide opportunities to pursue and develop interests, explore potential, develop capacities and learn of the resources within himself and within his external world.

Remedial Programs which focus on the reduction of pathology or specific disability, providing task and activity experiences which may diminish the particular impairment, restore or develop the individual's capacity to function. In this context, the tasks or activities selected will be those whose characteristics and properties will, for example, provide specific exercise and motor learning; offer appropriate sensory stimuli and improve response; promote muscle strength, endurance and coordination; alter disorders in thinking and/or feeling; teach and enhance interpersonal skills; offer the necessary psychological need gratification; correct faulty self concepts and identity; develop those attitudes and skills basic to the pursuit of independent functioning.
Daily Life Tasks and Vocational Adjustment Programs, which are primarily concerned with work adaptation and work role adjustment and where the tasks chosen are those which will promote and teach independent functioning, develop and enhance the ability to work and/or fulfill age-specific life tasks and roles. This focus involves the identification and examination of those roles and skills essential for the individual’s adaptation to his community; assessment of the nature and level of his work capacities, attitudes and self care skills; identification of what learning needs to occur and in what sequence; provision of graded task experiences which will teach the necessary skills and attitudes.

These programs are not mutually exclusive, but often occur simultaneously. Thus, for example, the child with a developmental deficit may be helped to achieve the necessary learning and growth through involvement in a game, working a puzzle or learning spatial relationships by painting a picture. The physically impaired may regain necessary muscle control through the grasping exercise in a personally gratifying game of checkers or in a woodworking project, or perhaps be taught to compensate for his loss through a competitive sport, learning to sculpt or to operate a calculator. Normal growth and development of the disadvantaged child may be supported and encouraged through participation in a story telling group, building an airplane model, or working with colored blocks. His parent may be helped to develop a sense of being able to influence his environment by involvement in a homemaking skills group, a housing project discussion group or developing relevant marketable job skills. The socially maladapted or emotionally disturbed person may be helped to develop more realistic responses to failure and success, more flexibility in responding to the demands of his world through participation in gardening or other group projects, or to perfect job related skills, or learn to manage his feelings and test his adequacy through creative painting, writing or drama.

The task or activity experiences within each frame of reference may be offered in the context of a group setting where the dynamics of the group are used to facilitate participation and goal achievement, or on an individual basis wherein the one-to-one relationship is used as a motivational and supportive force.

The overall service functions of the occupational therapist are to:

1. evaluate the individual client or patient’s performance capacities and deficits;
2. select tasks or activity experiences appropriate to the defined needs and goals;
Occupational Therapy: Its Definition and Functions

(3) facilitate and influence client or patient participation and investment;

(4) evaluate response, assess and measure change and development; and

(5) validate assessments, share findings and make appropriate recommendations.

Occupational therapy provides service to a wide population in a variety of settings such as hospitals and clinics, rehabilitation facilities, sheltered workshops, schools and camps, extended care facilities, private homes, housing projects, and community agencies and centers. Occupational therapists both receive from and make referrals to the appropriate health, education or medical specialists. The teacher, public health nurse, physician, physical therapist, psychologist, speech pathologist, social worker and recreator are some of the professionals with whom the responsibility for comprehensive care is shared.

Delivery of occupational therapy services involves several levels of personnel. The basic entrance level qualifications, roles and functions of each may be broadly defined and differentiated as follows:

February, 1972
Clinical Chemistry

CLINICAL CHEMISTRY

Chairman: Daniel M. Baer, M.D., ASCP Council on Clinical Chemistry, Director of Laboratory, The Permanente Clinic, Portland, Ore.

Robert Foity, M.D. and Janice Sattler, Washington Alaska Regional Medical Program, Seattle

BASIC PRINCIPLES - INSTRUMENT ASPECTS - 2 Parts

BASIC PRINCIPLES - CHEMICAL ASPECTS
Herbert E. Spiegle, Ph.D., Research Division, Hoffmann-LaRoche, Inc., Nutley, N.J.

Thomas Liddy, M.D., St. Mary's Hospital, Hoboken, N.J.

AUTOANALYZER
Jerald Schenken, M.D., Nebraska-Methodist Hospital, Omaha, Neb.

QUALITY CONTROL IN CLINICAL CHEMISTRY
Joseph H. Bourwell, M.D., Ph.D, Chief, Licensure and Development, Laboratory Division, CDC, Atlanta, Ga.

LIPID METABOLISM AND METODOLOGY
Eugene W. Landreth, M.D., Pathologist, Holliday Park Hospital, Portland, Ore.

CARBOHYDRATE METABOLISM AND METODOLOGY
Gerald R. Cooper, M.D., Ph.D., ASCP Council on Clinical Chemistry, Chief, Lipids Section, Clinical Chemistry, Hematology & Pathology Branch, Laboratory Division, CDC, Atlanta, Ga.

METHODS USED FOR DETERMINATION OF BLOOD GLUCOSE
Gerald R. Cooper, M.D., Ph.D.

NITROGEN METABOLISM
Herbert E. Spiegle, Ph.D., and Thomas Liddy, M.D.

PROTEIN MEASUREMENT
Franklin Ewlech, M.D., Pathologist, Mt. Zion Hospital & Medical Center, San Francisco, Calif.

WATER AND MINERAL METABOLISM INCLUDING ELECTROLYTES - 2 Parts
Irwin Schenek, M.D., Los Roses Hospital, Thousand Oaks, Calif.

CHEMISTRY OF RESPIRATION: ACID-BASE BALANCE
Werner Fleischer, M.D., Pathologist, St. Joseph Hospital, Joliet, Ill.

TECHNICAL ASPECTS OF PH AND BLOOD GAS MEASUREMENTS
Werner Fleischer, M.D.

BILIRUBIN METABOLISM AND METHODOLOGY
L.D.R. Paul Phillip Sher (MCUSNR), National Naval Medical Center, Bethesda, Md.

GASTRIC AND CEREBROSPINAL FLUID ANALYSIS
Ronald C. Proctor, M.D., ASCP Council on Special Topics, and Thomas D. Trainer, M.D., Pathologist, Medical Center Hospital of Vermont, Burlington.

QUANTITATIVE MEASUREMENT OF ENZYME ACTIVITY - 2 Parts
Herbert E. Spiegle, Ph.D., and Thomas Liddy, M.D.

DANIEL M. BAER, M.D., Director of Laboratory, The Permanente Clinic, Portland, Ore.

THYROID FUNCTION TESTS - 2 Parts
C.A. Nugent, M.D., Chief, Endocrinology Section, Department of Internal Medicine, University of Arizona, Tucson

CLINICAL LABORATORY TOXICOLOGY
Thorne J. Butler, M.D., ASCP Council on Clinical Chemistry, Southern Nevada Memorial Hospital, Las Vegas, Nev.

ISOTOPES
Angelo Lapi, M.D., Pathologist, St. Mary's Hospital, Kansas City, Mo.

Lecture Titles and Authors
VOLUME III: 400 Slides Review

Coagulation, Hematology

The four coagulation lectures cover theory, nomenclature and testing procedures. It is a field where progress has been rapid during the past three decades. The introduction of new coagulation factors and the development of new laboratory methods have been helpful both in the diagnosis of bleeding disorders, and also in monitoring the therapeutic management of bleeders.

The series deals with the theory of hemostasis including basic coagulation reactions; routine screening tests used in the evaluation of the hemostasis reaction; the application of tests in differential diagnosis; and the theory of fibrinolysis reflecting current concepts of fibrinolytic mechanism.

More than 400 colored slides are incorporated in the 14 lectures in the hematology series to provide a comprehensive survey of blood cell morphology, with particular emphasis on abnormal cellular components present in disease. Seven experts in the field of hematology present this section of the series clearly and concisely. The introductory lecture reviews fundamental teaching procedures and principles and gives a basis for discussions of the techniques used to study hematologic disorders.

The presentation of abnormalities of red cells and the lectures on diagnostic tests for sickle cell disease describe and illustrate the many classic aberrations seen in the laboratory. An approach to the study of normal and abnormal reactions. Special hematology procedures and techniques and approaches are used as an aid to
<table>
<thead>
<tr>
<th>Registered Occupational Therapist (OTR)</th>
<th>Certified Occupational Therapy Assistant (COTA)</th>
<th>Occupational Therapy Aide (OTA)</th>
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<tbody>
<tr>
<td><strong>Direct Svcs. (Cont'd.)</strong></td>
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<tr>
<td>Remedial Program</td>
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2) Selects tasks or activities appropriate to the treatment needs and goals

3) Engages client/patient in remedial activity or task; uses group and/or interpersonal dynamics to facilitate and sustain appropriate participation and effect change

4) Evaluates response, assesses and measures change and development in relation to treatment goals

5) Evaluates and validates findings, shares assessment with other professionals

6) Counsels patient/client; discusses progress, reviews goals with patient/client

7) Makes recommendations and referrals to other programs and/or agencies as indicated

2) In collaboration with or under supervision of OTR, may select specified remedial tasks or activity as appropriate to treatment needs and goals

3) Under supervision of and/or in collaboration with OTR, may engage client/patient in remedial activity or task; uses group and/or interpersonal dynamics to facilitate and sustain appropriate participation and effect change

4) In collaboration with or under supervision of OTR, may evaluate response, measure change & development, and record data as requested

5) Contributes to evaluation of data, communicates results to others as appropriate

6) May, as requested, review progress and goals with client/patient

7) Makes recommendations and referrals to other programs and/or agencies as indicated

2) Not recognized as being trained to perform this function

3) Not recognized as being trained to perform this function

4) Observes general behavior and records data as requested

5) Not recognized as being trained to perform this function

6) As delegated and under supervision, may review progress with client/patient

7) May make referrals as requested
<table>
<thead>
<tr>
<th>Registered Occupational Therapist (OTR)</th>
<th>Certified Occupational Therapy Assistant (COTA)</th>
<th>Occupational Therapy Aide (OTA)</th>
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</thead>
<tbody>
<tr>
<td><strong>Direct Svcs. (Cont'd.)</strong></td>
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<tr>
<td>Remedial Program</td>
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<tr>
<td>8) Maintains medical and progress record related to professional assessments</td>
<td>8) Contributes observations to be included in clinical and progress records. Maintains essential records</td>
<td>8) Shares observations to be included in clinical records and progress notes</td>
</tr>
<tr>
<td><strong>Daily Life Tasks and Vocational Adjustment Program</strong></td>
<td></td>
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</tr>
<tr>
<td>1) Identifies the work roles and/or tasks required for adaptation to the community; delineates the skills required for such roles or tasks</td>
<td>1) Contributes information from personal knowledge regarding particular work roles and life tasks</td>
<td>1) May contribute information from personal knowledge regarding work roles and life tasks in his culture</td>
</tr>
<tr>
<td>2) Assesses the nature and level of client/patient's work capacities and skills, attitudes, and self care abilities</td>
<td>2) a. May assist in the administration and/or scoring of routine standardized tests and evaluation procedures; b. May assist in collecting data regarding client/patient's work capacities; c. Observes and reports attitudes and observable skills</td>
<td>2) Observes and reports general behavior</td>
</tr>
<tr>
<td>3) Identifies the kind and level of learning which needs to occur, and in what order</td>
<td>3) Assists with identifying learning needs</td>
<td>3) Contributes observations which aid in identifying learning needs</td>
</tr>
<tr>
<td>4) Selects activities and tasks appropriate to these needs</td>
<td>4) May collaborate with the OTR in selection of appropriate activities</td>
<td>4) Not recognized as being trained to perform this function</td>
</tr>
<tr>
<td>5) Engages client/patient in task experience and uses group and/or interpersonal relationship to facilitate and sustain participation and learning</td>
<td>5) Teaches and/or assists client/patient in tasks; uses group and/or interpersonal relationship to sustain interest and learning</td>
<td>5) May teach or assist in teaching some activities with which he has had experience; uses interpersonal relationship to sustain interest and learning</td>
</tr>
</tbody>
</table>
### Direct Svcs. (Cont'd.)

#### Daily Life Tasks and Vocational Adjustment Program

<table>
<thead>
<tr>
<th>Task</th>
<th>Registered Occupational Therapist (OTR)</th>
<th>Certified Occupational Therapy Assistant (COTA)</th>
<th>Occupational Therapy Aide (OTA)</th>
</tr>
</thead>
<tbody>
<tr>
<td>6) Evaluates response, assesses and measures learning and development</td>
<td>6) Reports responses, identifies progress of learning, shares information with OTR and/or appropriate others</td>
<td>6) Reports response, shares impressions with OTR and/or COTA</td>
<td></td>
</tr>
<tr>
<td>7) Validates findings, shares information with other professional staff</td>
<td>7) Shares information with others as requested</td>
<td>7) Shares information with others as requested</td>
<td></td>
</tr>
<tr>
<td>8) Counsels client/patient regarding progress, goals and plans and/or supervises counseling process</td>
<td>8) Counsels client/patient regarding progress, goals and plans as requested and under supervision of OTR</td>
<td>8) Not recognized as trained to perform counseling functions.</td>
<td></td>
</tr>
<tr>
<td>9) Makes referrals to other programs and/or agencies as indicated</td>
<td>9) Makes referrals to other programs or agencies as requested and/or in collaboration with OTR</td>
<td>9) Not recognized as being trained to perform this function</td>
<td></td>
</tr>
<tr>
<td>10) Maintains medical and progress records</td>
<td>10) Keeps progress notes</td>
<td>10) Writes notes as requested</td>
<td></td>
</tr>
</tbody>
</table>

### Program Support Functions

<table>
<thead>
<tr>
<th>Task</th>
<th>Registered Occupational Therapist (OTR)</th>
<th>Certified Occupational Therapy Assistant (COTA)</th>
<th>Occupational Therapy Aide (OTA)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1) Plans, directs, coordinates, and evaluates program services; determines program and personal needs; assures correlation, coordination and communication among staff and with other services.</td>
<td>1) Assists in planning and evaluation of program; may plan and carry responsibility for health maintenance and prevention program, may determine program and personal needs as appropriate</td>
<td>1) Contributes impressions and assists as requested.</td>
<td></td>
</tr>
<tr>
<td>Registered Occupational Therapist (OTR)</td>
<td>Certified Occupational Therapy Assistant (COTA)</td>
<td>Occupational Therapy Aide (OTA)</td>
<td></td>
</tr>
<tr>
<td>----------------------------------------</td>
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</tr>
<tr>
<td>9) Provides information to individuals and groups outside the facility or agency to inform community of occupational therapy services</td>
<td>9) Assists in promoting public awareness and understanding of occupational therapy services</td>
<td>9) Assists in promoting public awareness and understanding of occupational therapy services as appropriate</td>
<td></td>
</tr>
<tr>
<td>10) Participates in, may coordinate, develop or implement research projects</td>
<td>10) May assist in research activities by compiling, recording or posting specific data</td>
<td>10) May provide technical assistance in the posting of specific data</td>
<td></td>
</tr>
<tr>
<td>11) Collaborates and consults with other professionals both within and outside the agency or facility to enhance program and services</td>
<td>11) Collaborates and consults with others so as to enhance program and services</td>
<td>11) Gives and receives appropriate and pertinent information as requested</td>
<td></td>
</tr>
</tbody>
</table>

January, 1973
EXAMINATIONS

Examinations will be scheduled on an area or Regional basis. The selection of a specific site will be dependent upon the number of applications received and the availability of physicians to monitor the examinations. You will be notified as to the date, time and place of the next examination to be administered in your area or region.

The written examination will consist of 150 multiple choice type questions. You will be allowed up to two and one half hours to complete the written portion.

The practical examination will require that you demonstrate your ability to physically apply the necessary skills of the E.M.T., and to answer questions relative to the prescribed practical skills.

Every effort will be exerted to schedule the written and practical examinations for the same day, succeeding days, or succeeding weeks.

The Registry examinations may be scheduled as the final for local training programs as well as for entry into the Registry. However, in such cases the trainees must submit applications for processing prior to the scheduled examination date.

Examinations must be returned to this office for accounting and shipment to Data Processing for computer grading.

You will be notified of the examination results on pass or fail basis only. This notification will be mailed to the address appearing on your application in approximately four weeks from the date of your examination.

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COLUMBUS, OHIO 43229
The purposes of the Registry are:

1. To promote the improved delivery of emergency medical services
2. To develop curricula and programs to assist in the development and organization of the Registry
3. To do any and all things necessary or desirable to accomplish the purpose of the Registry
4. To conduct examinations and provide credentials
5. To establish qualifications

The purposes of the Registry are:

1. To establish qualifications
2. To conduct examinations and provide credentials
3. To do any and all things necessary or desirable to accomplish the purpose of the Registry

For Examination and Qualification

Entry Requirements

1. Experience
2. Age
3. Registration Fee
4. Funding
5. Registry of Emergency Medical Technicians
6. Registry of Emergency Medical Technicians-Ambulance
7. Registry of Emergency Medical Technicians-Interfacility
8. Registry of Emergency Medical Technicians-Advanced
9. Registry of Emergency Medical Technicians-Additional Services
10. Registry of Emergency Medical Technicians-Additional Services

For Examination and Qualification
EQUIVALENCY EXAMINATIONS

AMPHLE QUESTIONS

CLINICAL CHEMISTRY

Which of the following is NOT a metabolic product of heme?
(A) Coproporphyrin (B) Bilirubin (C) Urobilinogen (D) Coproporphyrinogen III (E) Biliverdin

ROBIOLOGY

Which of the following is NOT a characteristic of Mycoplasma pneumoniae?
(A) Beta hemolysis (B) Resistance for serum (C) Glucose utilization (D) Capability to replicate dependent growth (E) Cell wall

MATOLOGY

What is the incidence of lupus erythematosus, the lupus nucleoprotein is most likely phagocytized by?
(A) Lymphocytes (B) Monocytes (C) Neutrophils (D) Erythrocytes (E) Myelocytes

IMMUNOHMATOLOGY

Antigen frequently weakens acute leukemia is
(D) Rh (E) Xg (C) A1 (D) A1 (E) Fy

PROFICIENCY EXAMINATIONS

CLINICAL CHEMISTRY

The concentration of a certain sulfuric acid solution is 20 normal. How many milliliters of the solution are required to make a liter of a 0.10 normal solution?
(A) 2.5 ml (B) 5.0 ml (C) 20 ml (D) 10.0 ml (E) 50.0 ml

MICROBIOLOGY

The most common incubator temperature (in degrees Fahrenheit) for human pathogens is
(A) 25°F (B) 30°F (C) 37°F (D) 56°F (E) 98°F

HEMATOLOGY

Wright stain causes the cytoplasm of lymphocytes to be colored
(A) purple (B) gray (C) yellow (D) pink (E) blue

BLOOD BANKING

With a volume of 30 milliliters of copper sulfate solution, approximately how many hemoglobin tests can be done?
(A) 15 (B) 25 (C) 50 (D) 75 (E) 100

OPPORTUNITIES TO GET AHEAD IN YOUR MEDICAL LABORATORY CAREER
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IN MEDICAL TECHNOLOGY

Academic Credit
For Job Placement

Four tests under the College-Level Examination Program (CLEP) of the College Entrance Examination Board. CLEP exams in undergraduate subjects are accepted by nearly 1,400 colleges and universities across the country. Fee: $15 per subject.

Candidates hoping for such credit in a MEDICAL LABORATORY TECHNOLOGIST (MLT) or MEDICAL TECHNOLOGY program should check the policy of the college or school they wish to attend.

90-minute paper-and-pencil tests, with optional essay tests. No eligibility requirements. Tests given monthly by Educational Testing Service at test centers across the country. Fee: $15 per subject.

For more information: write to:
CLEP Educational Testing Service
Box 992
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Proficiency examinations for jobs in Medical Laboratory Technology, a field that involves the use of laboratory techniques and equipment to diagnose diseases and other conditions. The four tests are:

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2. Microbiology—Tests for the presence of infectious diseases
3. Clinical Chemistry—Tests for the presence of metabolic disorders
4. Immunohematology—Tests for the presence of blood compatibility

These tests are given twice a year by Educational Testing Service at test centers across the country. Fee: $25, for one of the four tests.

Sponsored by the National Committee for Careers in the Medical Laboratory (NCCML).

For more information, write to:
NCCML Proficiency Examinations
9650 Rockville Pike
Bethesda, Maryland 20850
LISTEN, LOOK & LEARN: A New Series of Taped Lectures and Slides

A comprehensive set of instructional material for the medical laboratory—a series of 72 taped lectures and more than 600 slides—is now available for those who need to study practically any phase of clinical laboratory work.

Four loose-leaf volumes contain the taped lectures, printed texts and slides covering seven basic areas of laboratory practice: blood banking, serology and urinalysis; clinical chemistry; coagulation and hematology; and microbiology.

These have been developed over a period of almost three years by 62 outstanding clinical scientists who donated their knowledge and time to research, tape and edit the lectures, select and key in the color slides and prepare the printed texts, diagrams, tables and references that make up the didactic material of the series.

The result of this effort is a comprehensive, detailed body of instruction. It is aimed at in-service continuing education; it will also be of assistance to students in schools of medical technology, medical laboratory technician and certified laboratory assistant programs.

It provides a self-learning instrument for inactive medical technologists who need to refresh their knowledge after a lapse of time away from the lab; of men trained in military laboratories moving into civilian jobs; of those preparing for proficiency, certification and licensure examinations. The series is suitable both for group training or individual self-study.

The entire 4-volume series is constructed to be sold as a unit or each volume may be purchased separately from NCCML or the National Audiovisual Center, General Services Administration, Washington, D.C. Printed texts of all lectures in seven booklets are also available as a unit, and will be especially useful to individual students in a school that has purchased the full Listen, Look and Learn set.

For further information about how to order the new series of Taped Lectures and Slides, see the Order Blank on Page 8 of this issue of GIST.

The Listen, Look and Learn series was produced by the National Committee for Careers in the Medical Laboratory of the American Society of Clinical Pathologists and the College of American Pathologists, financed on contract from the U.S. Department of Labor.
VOLUME I: Blood Banking, Serology, Urinalysis in 18 Lectures

Clinical pathologists and scientists in public and private research organizations, the American Association of Blood Banks and the American National Red Cross, and the Center for Disease Control contributed the 18 lectures that make up the three series in Volume I on blood banking, serology, and urinalysis.

The eight lectures on blood banking present currently acceptable techniques with emphasis on the special problems of crossmatching and the complications that may surround blood transfusions. Hemolytic disease of the newborn and blood group antibodies are given special treatment; the final lecture discusses the critical importance of quality control in blood banks.

Serologists at CDC contributed all the tapes on the serology series. Basically, this is an overview of general precepts, with the five lectures laying the groundwork for excursions into more advanced techniques soon to be adopted in the immunoserology laboratory.

Sixty color slides accompany the three tapes in the urinalysis series, a fundamental review of microscopic, chemical and other special tests for the study of urine. They were all contributed by Dr. Robert G. Lancaster, Chairman for the urinalysis series. He recently edited an atlas with slides, “Urinary Sediment”, for the American Society of Clinical Pathologists’ Commission on Continuing Education.

How 62 Laboratory Scientists Developed Series Over Three-Year Period

Careful organization and a system of meticulous review were the safeguards built into the development of NCCML’s Taped Lectures and Slides for accuracy and timeliness. Their scientific authority was assured by the high professional calibre of the experts who taped the lectures and the committees that reviewed them.

The project was launched under the aegis of NCCML’s Education Committee, headed by Jon V. Straumfjord, Jr., M.D., Chairman, Department of Pathology, Medical College of Wisconsin, Milwaukee, and Mary S. Britt, M.S., MT(ASCP), School of Medical Technology, Duke University. Co-Chairmen of the Steering Committee for the entire project were Miss Britt and Robert G. Lancaster, M.D., Chief of Pathology, Mercy Hospital, Baltimore, and ASCP Deputy Commissioner of Medical Laboratory Personnel.

Chairman of the seven areas, who defined the subject matter to be covered and selected the individual professionals to tape the lectures and collect visuals, are: Chester Zmijewski, Ph.D. (Blood Banking, Serology); Robert G. Lancaster, M.D. (Urinalysis); Daniel M. Baer, M.D., (Clinical Chemistry); Harold R. Roberts, M.D. (Coagulation); Robert J. Hartsock, M.D. (Hematology); John Neff, M.D. (Microbiology).

Other members of the steering committee were: George F. Stevenson, M.D., ASCP, Chicago; Evelyn Abell, MT(ASCP), Laboratory Division, Center for Disease Control; Atlanta; Bettina Martin, MT(ASCP), Upstate Medical Center, State University of New York, Syracuse; Martha Wallace, MT(ASCP), St. Barnabas Medical Center, Livingston, N.J.

The review system began when the lecturer transmitted his taped lecture to Mrs. Betts Kenworthy, NCCML Project Coordinator, for transcription and general review. The lecture was then sent to the area committee involved for a professional critique, and then to members of the overall steering committee for final review.

Both Dr. Lancaster and Miss Britt read and listened to all of the 72 lectures. Tapes and transcripts then came back to NCCML for copy editing and additions of titles and subheads. The printed texts and slides were returned to the original lecturer for a last check before the final journey to the sound studio, printer and color laboratory.

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Lecture Titles and Authors

**BLOOD BANKING**
Chairman: Chester Zmijewski, Ph.D., Director, Transplantation Immunology & Diagnostic Research, Ortho Research Foundation, Raritan, N.J.

Douglas W. Huestis, M.D., Department of Pathology, College of Medicine, University of Arizona, Tucson
Reginald M. Lambert, Ph.D., Blood Group Research Unit, School of Medicine, State U. of New York, Buffalo.

**BASIC REVIEW OF BLOOD AND COMPONENTS**
David Borucki, M.D., Pathologist, Community Hospital of the Monterey Peninsula, Carmel, Calif.

**BLOOD COLLECTION**
Barbara LaG. Luchsinger, Assistant National Director, Blood Program Nursing, and Kris Murawski, M.D., Assistant National Medical Director, Blood Program, under direction of T.J. Greenwalt, M.D., National Medical Director, Blood Program, The American National Red Cross, Washington, D.C.

**COMPLICATIONS OF TRANSFUSION**
Ned G. Maxwell, M.D., Medical Director, Central Blood Bank of Pittsburgh

**PRETRANSFUSION TESTING**
Byron A. Myhre, M.D., ASCP Council on Immunohematology, Associate Professor of Pathology, University of California School of Medicine, and Scientific Director, The American National Red Cross, Los Angeles

**SPECIAL PROBLEMS IN PRETRANSFUSION TESTING**
Frances K. Widman, M.D., Assistant Professor of Pathology, Duke U. Medical Center, Durham, N.C.

**HEMOLYTIC DISEASE OF THE NEWBORN**
Margaret Treacy, Educational Services Associate, Ortho Diagnostics, Raritan, N.J.

**BLOOD GROUP ANTIBODIES**
Margaret Treacy

**QUALITY CONTROL AND ADMINISTRATION**
Eleanor Huffmaster, MT(ASCP)BB, Chicago Blood Donor Service, Chicago

---

**SEROLOGY**
Chairman: Chester Zmijewski, Ph.D., Director, Transplantation Immunology & Diagnostic Research, Ortho Research Foundation, Raritan, N.J.

Dan F. Palmer, Dr. P.H., Chief, Serology Training Unit, CDC, Atlanta, Ga.

E.L. Cavanaugh, Dr. P.H., Chief, Laboratory Training Section, CDC, Atlanta, Ga.

**SEROLOGY—GENERAL REVIEW**
Dan F. Palmer, Dr. P.H.

**SERODIAGNOSIS OF SYPHILIS**
Leslie C. Norins, M.D., Ph.D., Research Consultant, Formerly Chief, Veneral Disease Research Laboratory, CDC, Atlanta, Ga.

**SERODIAGNOSIS OTHER THAN SYPHILIS AND BLOOD BANK-2 Parts**
Robert H. Galt, Jr., D.S., Serology Training Unit, CDC, Atlanta, Ga.

**IMMUNO DIAGNOSTIC TESTS FOR THE DETECTION OF AUTOIMMUNE, MYCOTIC, PARASITIC AND VIRAL DISEASES-2 Parts**
Joseph J. Cavallaro, Ph.D., Serology Training Unit, CDC, Atlanta, Ga.

**QUALITY CONTROL IN THE SEROLOGY LABORATORY**
Dan F. Palmer, Dr. P.H.

---

**URINALYSIS**
Chairman: Robert G. Lancaster, M.D., Deputy Commissioner of Medical Laboratory Personnel, ASCP, Director, Department of Clinical Pathology, Mercy Hospital, Baltimore, Md.

**ROUTINE CHEMICAL TESTS**
Robert G. Lancaster, M.D.

**EXAMINATION OF THE URINARY SEDIMENT**
Robert G. Lancaster, M.D.

**SPECIAL CHEMICAL TESTS**
Robert G. Lancaster, M.D.
VOLUME II: Basic Review, Specific Testing in Clinical Chemistry Series.

The 22 lectures concerned with the complex field of clinical chemistry describe, in the words of Committee Chairman Daniel M. Baer, "the present state of the art." Following a general exposition of principles governing the operation of the modern clinical chemistry laboratory, the lecturers turn to discussions of specific chemistry tests.

In each of these specific areas, the lecturer describes the physiological background of his subject and surveys methods for analysis, including patient preparation, problems of specimen handling, normal values, and deviations seen in various disease states. None is how-to-do, but all provide the basic information needed for an overall understanding of the field. For example, Jerald Schenken, M.D., in his tape on the AutoAnalyzer, describes the function of each of its components, introduces the theory of continuous flow and sequential multiple analysis, but makes no attempt to instruct the student in the operation of the instrument.

Irwin Schoen, M.D., contributor of lecture on Water and Mineral Metabolism, explains I.L. flame photometer and importance of electrolytes to technologist trainees.

STATE REPOSITORIES FOR LISTEN, LOOK & LEARN

Two sets of the four volumes of NCCML's Lecture Tapes and Slides will be available for preview in each state on a short-term loan basis. In one loan set, the tapes are on 5-inch reels; in the other, they are in cassettes. Six of the larger states will have four sets for borrowers - California, Illinois, Ohio, New York, Pennsylvania, and Texas. Name and address of the repository in your state may be requested from the National Committee for Careers in the Medical Laboratory, 9560 Rockville Pike, Bethesda, Maryland 20014.

Other representative examples from the clinical chemistry series include a tape on quality control with a discussion of systems of analysis, interpretation of data and those factors that can cause variation in analytical results. The lecture on lipid metabolism and methodology describes the unique role of each class of lipids in the human body, the variety and complexity of analytical methods, and explores the pitfalls of lipoprotein phenotyping methodology interpretation. The lecture on proteins lists the many diverse systems for analysis and separation and the problems involved.

Distribution of water and electrolytes in the body is a two-part lecture covering the clinical situations in which water and electrolyte shifts can occur, altering concentrations in body fluids, their physiological backgrounds and the laboratory measurements that might be used. Two tapes on the chemistry of respiration go thoroughly into the function and significance of blood gases, blood pH, its regulation and types of alterations encountered in clinical practice, and ends up with a technical exposition of sample collection, storage, instrumentation, quality control and methodology.

Joseph H. Boutwell, M.D., past president of American Association of Clinical Chemists contributes his expertise as CDC's Chief of Licensure Branch to tape lecture on Quality Control.

Jerald Schenken, M.D., author of lecture on AutoAnalyzer, demonstrates operation of equipment in laboratories of Nebraska Methodist Hospital, Omaha. Dr. Schenken serves on ASCP's Committee on Clinical Pathology Education.

Daniel B. Baer, M.D. heads clinical chemistry series, serves on ASCP's Council on Clinical Chemistry with lecturers T.J. Butler, M.D., and G.R. Cooper, M.D. Other lecturers serve on other ASCP committees.

Irwin Schoen, M.D., contributor of lecture on AutoAnalyzer, demonstrates operation of equipment in laboratories of Nebraska Methodist Hospital, Omaha. Dr. Schenken serves on ASCP's Committee on Clinical Pathology Education.

Irwin Schoen, M.D., contributor of lecture on AutoAnalyzer, demonstrates operation of equipment in laboratories of Nebraska Methodist Hospital, Omaha. Dr. Schenken serves on ASCP's Committee on Clinical Pathology Education.

Werner Fleischer, M.D. tapes lectures on Chemistry of Respiration. He has prepared manual on the chemistry of respiration for ASCP Council on Continuing Education workshop.
Lecture Titles and Authors

**COAGULATION**
Chairman: Harold R. Roberts, M.D., Professor of Medicine, Department of Pathology, University of North Carolina School of Medicine, Chapel Hill, N.C.
- Clara V. Hussey, M.D., Assistant Professor, Department of Pathology, The Medical College of Wisconsin, Milwaukee
- Elizabeth Hendrick, MT(ASCP), Department of Pathology, University of North Carolina School of Medicine, Chapel Hill, N.C.

**BLOOD COAGULATION**
Clara V. Hussey, M.D.

**ROUTINE (SCREENING) PROCEDURES**
Clara V. Hussey, M.D.

**SPECIFIC TESTS FOR INDIVIDUAL FACTORS**
Harold R. Roberts, M.D.

**FIBRINOLYSIS**
Harold R. Roberts, M.D.

**HEMATOLOGY**
Chairman: Robert J. HartsocK, M.D., Head, Department of Hematology, William H. Singer Memorial Research Institute, Allegheny General Hospital, Pittsburgh, Pa.
- Col Elkins, M.Ed., MT(ASCP), Department of Medical Technology, University of Pittsburgh
- Barbara Gutman, MT(ASCP), Department of Medical Technology, University of Pittsburgh

**FUNDAMENTAL TEACHINGS IN HEMATOLOGY**
Robert J. HartsocK, M.D.

**QUALITY CONTROL IN HEMATOLOGY**
Sidney Goldblatt, M.D., Director of Laboratories, Conemaugh Valley Memorial Hospital, Johnstown, Pa.

**ABNORMALITIES IN RED CELL MORPHOLOGY** - 3 Parts
- Ann Bell, B.A., SH(ASCP), ASCP Council on Hematology, Section of Hematology, University of Tennessee College of Medicine, Memphis, Tenn.

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Chairman: John Neff, M.D., Associate Professor, Department of Pathology, School of Medicine, University of Missouri, Columbia
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**CULTURE OF MICROORGANISMS FROM THE CEREBROSPINAL FLUID**
- John Neff, M.D.

**CULTURE OF ORGANISMS FROM THE UPPER AND LOWER RESPIRATORY PASSAGES**
- Eugene C. Wienke, M.D., Resident in Pathology, School of Medicine, University of Missouri, Columbia

**CULTURE OF ENTERIC PATHOGENS**
- John Neff, M.D.

**CULTURE OF NON-FERMENTATIVE GRAM-NEGATIVE BACILLI**
- John Neff, M.D.

**CULTURE OF MICROORGANISMS FROM BLOOD**
- John Neff, M.D.

**CULTURE OF ORGANISMS FROM THE GENITOURINARY SYSTEM**
- John Neff, M.D.

**CULTURE OF ORGANISMS FROM WOUNDS**
- John Neff, M.D.

**ANTIMICROBIAL SUSCEPTIBILITY TESTING OF BACTERIA**
- John Neff, M.D.

**CULTURE OF ANAEROBES**
- John Neff, M.D.

**CULTURE OF MYCOBACTERIA FROM CLINICAL SPECIMENS**
- John Neff, M.D.

**CULTURE OF FUNGI**
- Gary Moore, Dr. P.H., School of Health Studies, University of New Hampshire, Durham

**COLLECTION OF SPECIMENS AND SELECTION OF LABORATORY PROCEDURES FOR DIAGNOSIS OF INTESTINAL PARASITES**
- Dorothy M. Melvin, Ph.D., Chief, Parasitology Training Unit, Laboratory Division, CDC, Atlanta, Ga.

April 1973
<table>
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<tr>
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